iPOLiS

The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

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# iPOLiS

## Samsung Network Solutions

iPOLiS

# High Quality Network Security Solution

iPOLiS is the collective name for Samsung Techwin's range of innovative IP based video security products. Offering solutions for a wide range of network based surveillance applications, the iPOLiS range consists of everything from megapixel and HD network cameras to network video recorders and intuitive Centralized Management Software (CMS) to make it easy to build a fully integrated security system.

# Why IP?

An IP based security system brings additional benefits to the user than that of a traditional analogue system.

## Remote Accessibility

Network based IP surveillance systems are extremely easy to view, control and administer from anywhere in the world. What is more, multiple streams are transmitted at various bandwidths to enable effective viewing over a range of equipment from a PC to a SmartPhone.

## Easy Integration

iPOLiS network based IP solutions contain dual outputs (BNC and Ethernet) to make the step up from analogue to IP cost effective and simple. Users are able to run IP equipment on an analogue network until the cabling is upgraded to CAT5, or use video encoders to transmit full IP data down the existing coaxial cable.

## Easy Expansion

Upgrading an analogue system can be extremely costly and time consuming because all cables need to be run from the camera equipment directly back into the control room. A network based IP solution does not have such issues and it is extremely easy to add additional cameras or recording/storage devices to the network.

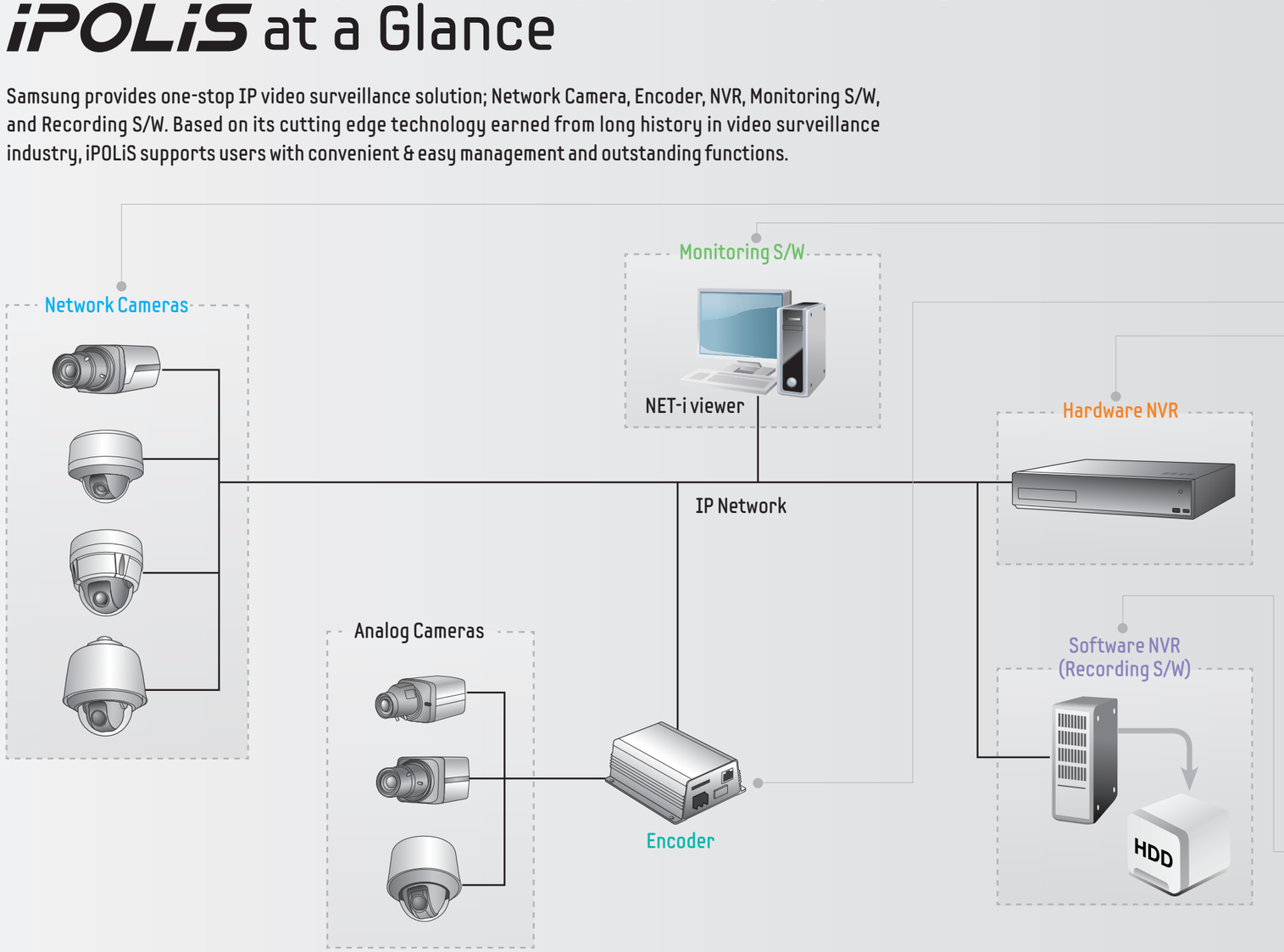
## Intelligent Monitoring

Network video surveillance products have built in intelligent video analytic functions including Motion Detection, People Counting, and Object Tracking. These functions help users to manage the videos in more convenient and effective ways. Users can quickly search recorded footage by specific events, such as an optical trip-wire activation, without having to review hours of video.

SAMSUNG

# iPOLiS at a Glance

Samsung provides one-stop IP video surveillance solution; Network Camera, Encoder, NVR, Monitoring S/W, and Recording S/W. Based on its cutting edge technology earned from long history in video surveillance industry, iPOLiS supports users with convenient & easy management and outstanding functions.




## Network Cameras

Network cameras communicate with monitoring/recording tools via IP network. Samsung is expanding its line ups for network cameras, based on its excellent technological background. Various types of network cameras which are equipped with useful functions.

## Encoder

To comprise surveillance system in network dose not mean having to change analog cameras were already installed. The encoder digitize the analog video signal into network so that the video from analog cameras can betransmitted via IP network.

## Monitoring Software

A common PC can be used as a monitoring device by installing NET-i, Samsung network monitoring software. Familiar operation and easy-to-use GUI will benefit users.

## Hardware NVR

Unlike DVR that digitize the analog video feeds, NVR receive digitized video images from IP network. While the DVR has to be located near the analog feeds, the NVR can be located anywhere on a network and users can simply access the recorded video.

## Software NVR (Recording Software)

NET-i ware, network recording software of Samsung, provides video streaming, recording and event management functions. Users can record video continuously, on schedule, on alarm and/or on motion detection.

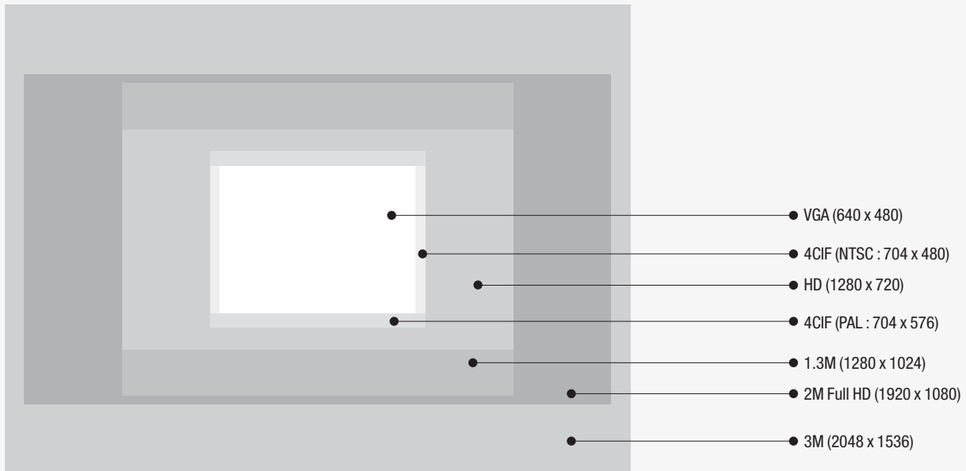
# Why iPOLiS Network Camera?

**iPOLiS presents a range of network cameras with features. Users can select the camera with various features which fits their needs.**

## Various Image Resolutions

iPOLiS network camera supports various resolutions, from 4CIF to VGA, Megapixel, and HD.

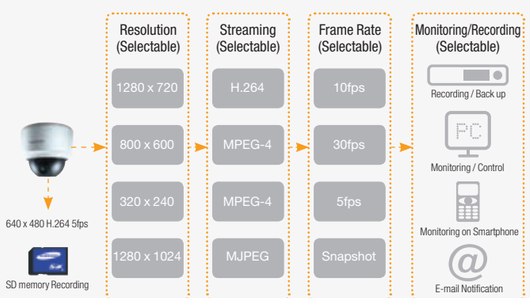
| | VGA | 4CIF | HD | 1.3Megapixel | 2Megapixel (Full HD) | 3Megapixel |
|---|---|---|---|---|---|---|
| NTSC | 640 x 480 | 704 x 480 | 1280 x 720 | 1280 x 1024 | 1920 x 1080 | 2048 x 1536 |
| PAL | | 704 x 576 | | | | |




Higher resolution images allow to catch the details clear so that the application place such as banks may need a network camera that supports megapixel resolution. However, transmitting megapixel images require considerable network bandwidth. With iPOLiS, users have a range of selection list for the network cameras which fit users' need and network environment.

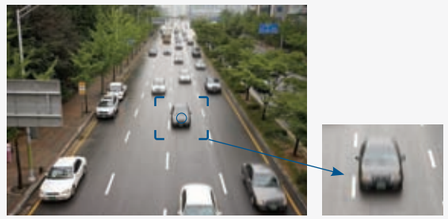
## Multiple Codec & Multiple Streaming

Multiple codec (H.264, MPEG-4 and MJPEG) can be transmitted simultaneously, enabling multiple purposes such as real time monitoring, high quality or high efficiency recording, mobile monitoring, E-mail notification, and SD memory recording.

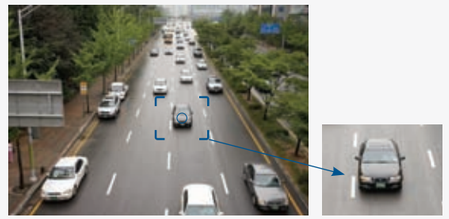



## Progressive Scanning

iPOLiS cameras equipped with A1 & SV-V DSP chip offer two scanning methods; Interlace and Progressive. Utilising progressive scanning method, the edges of moving objects can be clearly defined. The cameras are ideal for highway and ANPR projects applications. While users can choose to utilise progressive or interlace scan, the cameras based on WiseNetI chipset, automatically set to utilise progressive scanning so that users can monitor the moving objects without blur.



Conventional Interlaced Scan
Network Camera



Samsung Progressive Scan
Network Camera

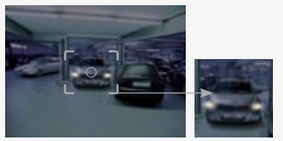
## SSNRIII / Motion Adaptive DNR

The SSNRIII/Motion Adaptive DNR function eliminates noise thus generating a distinct and clear image. It utilizes both an adaptive 2D filter reducing noise of moving parts and an adaptive 3D filter reducing noise of fixed parts. Equipped with SSNRIII/Motion Adaptive DNR function, iPOLiS network cameras remove noise (Fixed Pattern, Random, etc.) and greatly reduce motion blur.

DNR Off



DNR On



Conventional DNR
Motion Blur on moving object

Motion Adaptive DNR
Clear image without motion blur

## SSDR (Samsung Super Dynamic Range) / eXtended Dynamic Range (XDR)

Under strongly backlit or high contrast scenes, cameras generally produce images which reproduce detail in the brighter area of the scene. Consequently, detail is often lost in the darker areas of the scene. Samsung network cameras provide SSDR/XDR technology to increase the level of visible detail in the dark areas, whilst maintaining image clarity and detail in the brighter portions of the image.

SSDR/XDR Off

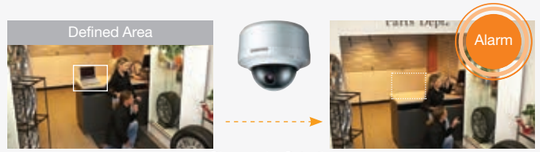
SSDR/XDR On

# Intelligent Video Analytics

The intelligent video analytics feature included in Samsung network cameras enables more accurate video monitoring.

### Disappear Detection

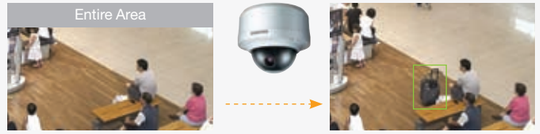
It activates an alarm immediately when an object disappears from a defined monitoring area.



Disappearing Detection

### Appear Detection

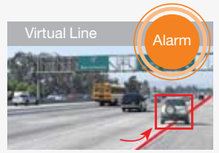
It activates an alarm if a new object merges and stays in a defined monitoring area longer than a set duration.



Appearing Detection

### Virtual Line Detection

It activates an alarm when an intruder comes into a virtual boundary line on the monitor.



Virtual Line Detection

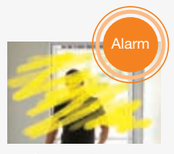
### Enter / Exit Detection

It activates an alarm when an object enters or leaves a defined monitoring area.

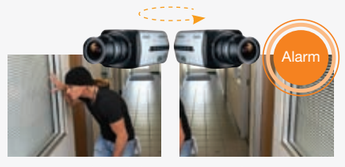
Enter/Exit Detection

### Scene Change (Tampering)

Scene change detection can detect interference and sends an alarm signal when the camera's operation has been hampered with, such as a manual change in the camera's angle, removal of the camera lens, defocus, blockage of the camera lens with cloth or spray paint.



Spray paint on Lens



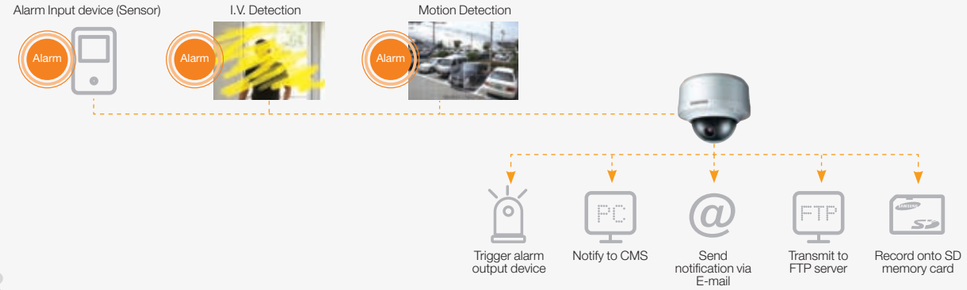
Manual change camera angle

### Auto Tracking

Auto Tracking function automatically follow a moving target. When a camera with auto tracking function follows the target, it records the video making it easier for users to search fast event data. This function is extremely useful in unmanned security monitoring environment. Also, when the target drifts off the scene of the camera, it automatically tracks the moving target.

# Alarm Event Control

Various alarm sources including alarm input ports, motion detection, intelligent video detection can make the camera trigger alarm outputs and Pre/Post images will be transmitted to FTP server or recorded onto the SD memory card. Also alarm notification with images is sent via E-mail.




# Compatibility

### ONVIF Conformance

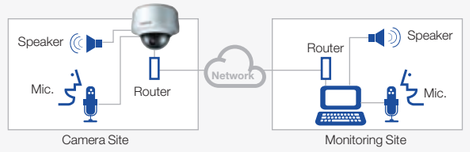
Samsung is the full member of ONVIF (Open Network Video Interface Forum) and Samsung Network Camera is following ONVIF specification and conforming.

Onvif
Driving network video through global standardization

# Other Features

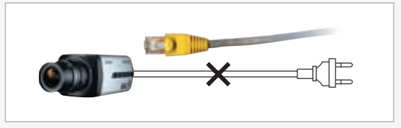
### Bi-Directional Audio Communication

Full duplex bi-directional audio allows interactive communication between camera site and monitoring site.



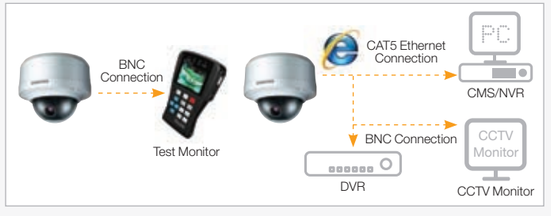

### PoE (Power over Ethernet)

Since power is supplied through the LAN cables, there will be less complicated cabling and the installation cost will be substantially reduced. (some PTZ models support hPoE)



### Hybrid Output

With both Ethernet and BNC connections, Samsung network camera can simultaneously stream IP video across the network and Analogue video via coaxial cabling to support existing analog equipment.




### SD memory card slot

Users can use a SD memory card as local storage to store all the events that occurred, or used as a back up. This allows the user to playback all the events even if the software network recorder is not available.

# Comparison Chart

| | SNB-1000 | SNB-2000 | SNB-3000 | SNB-5000 | SND-1010 |
|---|---|---|---|---|---|
| | | | | | |
| Image Sensor | 1/4" PS CMOS | 1/3" Super HAD PS CCD | 1/3" Super HAD PS CCD | 1/3" 1.3M PS CMOS | 1/4" PS CMOS |
| Min. Illumination | Color : 1.4Lux (50 IRE) | Color : 0.4Lux (50 IRE)<br>B/W : 0.4Lux (50 IRE) | Color : 0.4Lux (50 IRE)<br>B/W : 0.04Lux (50 IRE) | Color : 0.3Lux (50 IRE)<br>B/W : 0.01Lux (50 IRE) | Color : 1.4Lux (50 IRE) |
| Day & Night | N/A | Yes (Software) | Yes (IR cut filter) | Yes (IR cut filter) | N/A |
| Wide Dynamic Range | N/A | N/A | Yes | N/A | N/A |
| Analog Out | N/A | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p | N/A |
| Focal Length | N/A | N/A | N/A | N/A | 2.9mm |
| Zoom Ratio | N/A | N/A | N/A | N/A | N/A |
| Compression | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) |
| Max. Resolution | 640 x 480 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 | 1280 x 1024 | 640 x 480 |
| Max. Frame Rate | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | 30fps at HD (720p) | NTSC : 30fps, PAL : 25fps |
| Audio I/O | N/A | N/A | Line in / Line out | Line in / Line out | N/A |
| Audio Compression | N/A | N/A | G.711 u-law (2-Way) | G.711 u-law (2-Way) | N/A |
| Memory Slot | N/A | N/A | Yes (SD/SDHC) | Yes (SD/SDHC) | N/A |
| Alarm I/O | 1 / 1 | 2 / 2 | 2 / 2 | 1 / 1 | 1 / 1 |
| Intelligent Video Analytics | Motion detection | Motion detection | Scene change, Virtual line, Enter / Exit, Appear / Disappear | Scene change, Virtual line, Enter / Exit, Appear / Disappear | Motion detection |
| Network Protocol | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF |
| Security | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log |
| Operating Temperature | 0˚C ~ +50˚C (+32°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | 0˚C ~ +50˚C (+32°F ~ +122°F) |
| Operating Humidity | 20% ~ 80% RH | 20% ~ 80% RH | 20% ~ 80% RH | 20% ~ 80% RH | 20% ~ 80% RH |
| Power Requirement | 12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 12V DC, PoE (IEEE802.3af) |

| | SND-3080/3080F | SND-3080C/3080CF | SND-5080/5080F | SNV-3080 | SNV-3120 |
|---|---|---|---|---|---|
| | | | | | |
| Image Sensor | 1/3" Super HAD PS CCD | 1/3" Super HAD PS CCD | 1/3" 1.3M PS CMOS | 1/3" Super HAD PS CCD | 1/4" Ex-view HAD PS CCD |
| Min. Illumination | Color : 0.4Lux (50 IRE)<br>B/W : 0.4Lux (50 IRE) | Color : 0.4Lux (50 IRE)<br>B/W : 0.4Lux (50 IRE) | Color : 0.3Lux (50 IRE)<br>B/W : 0.01Lux (50 IRE) | Color : 0.4Lux (50 IRE)<br>B/W : 0.04Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.07Lux (50 IRE) |
| Day & Night | Yes (Software) | Yes (Software) | Yes (IR cut filter) | Yes (IR cut filter) | Yes (IR cut filter) |
| Wide Dynamic Range | Yes | Yes | N/A | Yes | Yes |
| Analog Out | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p |
| Focal Length | 2.8 ~ 11mm | 2.8 ~ 11mm | 2.8 ~ 10mm | 2.8 ~ 11mm | 3.69 ~ 44.32mm |
| Zoom Ratio | 3.9x | 3.9x | 3.6x | 3.9x | 12x |
| Compression | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple streaming (Individual streaming simultaneously) |
| Max. Resolution | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 | 1280 x 1024 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 |
| Max. Frame Rate | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | 30fps at HD (720p) | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps |
| Audio I/O | N/A | N/A | Line in / Line out | Line in / Line out | Line in / Line out |
| Audio Compression | N/A | N/A | G.711 u-law (2-Way) | G.711 u-law (2-Way) | G.711 u-law (2-Way) |
| Memory Slot | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) |
| Alarm I/O | 2 / 2 | 2 / 2 | 1 / 1 | 2 / 2 | 1 / 1 |
| Intelligent Video Analytics | Motion detection | Motion detection, Object counting | Scene change, Virtual line, Enter / Exit, Appear / Disappear | Scene change, Virtual line, Enter / Exit, Appear / Disappear | Motion detection, Moved / Fixed |
| Network Protocol | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF |
| Security | HTTPS(SSL) login authentication Digest login authentication User access log | HTTPS(SSL) login authentication Digest login authentication User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log |
| Protection | | | | IP66 Grade, Vandal-resistant | IP66 Grade, Vandal-resistant |
| Operating Temperature | -10˚C ~ +50˚C (+14°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | -40˚C ~ +50˚C (-40°F ~ +122°F) | -40˚C ~ +50˚C (-40°F ~ +122°F) |
| Operating Humidity | 20% ~ 80% RH | 20% ~ 80% RH | 20% ~ 80% RH | 20% ~ 80% RH (Waterproof) | 20% ~ 80% RH (Waterproof) |
| Power Requirement | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) |

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# Comparison Chart

| | SNV-5010 | SNV-5080 | SNP-3120 | SNP-3120V | SNP-3120VH |
|---|---|---|---|---|---|
| | | | | | |
| Image Sensor | 1/3" 1.3M PS CMOS | 1/3" 1.3M PS CMOS | 1/4" Ex-view HAD PS CCD | 1/4" Ex-view HAD PS CCD | 1/4" Ex-view HAD PS CCD |
| Min. Illumination | Color : 1Lux (50 IRE) | Color : 0.3Lux (50 IRE)<br>B/W : 0.01Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.07Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.07Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.07Lux (50 IRE) |
| Day & Night | N/A | Yes (IR cut filter) | Yes (IR cut filter) | Yes (IR cut filter) | Yes (IR cut filter) |
| Wide Dynamic Range | N/A | N/A | Yes | Yes | Yes |
| Analog Out | DIP connector | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p |
| Focal Length | 3mm | 2.8 ~ 10mm | 3.69 ~ 44.32mm | 3.69 ~ 44.32mm | 3.69 ~ 44.32mm |
| Zoom Ratio | N/A | 3.6x | 12x | 12x | 12x |
| Compression | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) | H.264 / MPEG-4/ MJPEG multiple streaming (Individual streaming simultaneously) |
| Max. Resolution | 1280 x 1024 | 1280 x 1024 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 |
| Max. Frame Rate | 30fps at HD (720p) | 30fps at HD (720p) | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps |
| Audio I/O | N/A | Line in / Line out | Line in / Line out | Line in / Line out | Line in / Line out |
| Audio Compression | N/A | G.711 u-law (2-Way) | G.711 u-law (2-Way) | G.711 u-law (2-Way) | G.711 u-law (2-Way) |
| Memory Slot | N/A | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) |
| Alarm I/O | 1 / 1 | 1 / 1 | 2 / 2 | 2 / 2 | 2 / 2 |
| Intelligent Video Analytics | Scene change, Virtual line, Enter / Exit, Appear / Disappear | Scene change, Virtual line, Enter / Exit, Appear / Disappear | Motion detection, Moved / Fixed | Motion detection, Moved / Fixed | Motion detection, Moved / Fixed |
| Network Protocol | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF |
| Security | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log |
| Protection | IP66 Grade, Vandal-resistant | IP66 Grade, Vandal-resistant | | IP66 Grade, Vandal-resistant | IP66 Grade, Vandal-resistant |
| Operating Temperature | -10˚C ~ +50˚C (+14°F ~ +122°F) | -40˚C ~ +50˚C (-40°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | -50˚C ~ +50˚C (-58°F ~ +122°F) | -50˚C ~ +50˚C (-58°F ~ +122°F) |
| Operating Humidity | 20% ~ 80% RH (Waterproof) | 20% ~ 80% RH (Waterproof) | Less than 90% RH | Less than 90% RH (Waterproof) | Less than 90% RH (Waterproof) |
| Power Requirement | 12V DC, PoE (IEEE802.3af) | 24V AC,12V DC, PoE (IEEE802.3af) | 24V AC, hPoE (IEEE802.3af) | 24V AC, hPoE (IEEE802.3af) | 24V AC, hPoE (IEEE802.3af) |

| | SNP-3301 | SNP-3370 | SNP-3301H | SNP-3370TH | SNP-3430H |
|---|---|---|---|---|---|
| | | | | | |
| Image Sensor | 1/4" Vertical double density interline CCD | 1/4" Vertical double density interline CCD | 1/4" Vertical double density interline CCD | 1/4" Vertical double density interline CCD | 1/4" Ex-view HAD PS CCD |
| Min. Illumination | Color : 0.7Lux (50 IRE)<br>B/W : 0.03Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.03Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.03Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.03Lux (50 IRE) | Color : 0.7Lux (50 IRE)<br>B/W : 0.07Lux (50 IRE) |
| Day & Night | Yes (IR cut filter) | Yes (IR cut filter) | Yes (IR cut filter) | Yes (IR cut filter) | Yes (IR cut filter) |
| Wide Dynamic Range | Yes | Yes | Yes | Yes | Yes |
| Analog Out | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p | CVBS 1.0Vp-p |
| Focal Length | 3.5 ~ 105mm | 3.5 ~ 129.5mm | 3.5 ~ 105mm | 3.5 ~ 129.5mm | 3.2 ~ 138.5mm |
| Zoom Ratio | 30x | 37x | 30x | 37x | 43x |
| Compression | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple codec (H.264 / MPEG-4 selectable) Simultaneous dual streaming | H.264 / MPEG-4 / MJPEG multiple streaming (Individual streaming simultaneously) |
| Max. Resolution | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 | NTSC : 704 x 480, PAL : 704 x 576 |
| Max. Frame Rate | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps | NTSC : 30fps, PAL : 25fps |
| Audio I/O | Line in / Line out | Line in / Line out | Line in / Line out | Line in / Line out | Line in / Line out |
| Audio Compression | ADPCM (2-Way) | ADPCM (2-Way) | ADPCM (2-Way) | ADPCM (2-Way) | G.711 u-law (2-Way) |
| Memory Slot | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) | Yes (SD/SDHC) |
| Alarm I/O | 4 / 2 | 4 / 2 | 4 / 2 | 4 / 2 | 8 / 4 |
| Intelligent Video Analytics | Motion detection, Appear / Disappear | Motion detection, Appear / Disappear | Motion detection, Appear / Disappear | Motion detection, Appear / Disappear, Auto tracking | Motion detection, Moved / Fixed |
| Network Protocol | IPv4, TCP/IP, UDP/IP, RTP, RTSP, NTP, HTTP, DHCP, FTP, SMTP, ICMP, IGMP, ARP, DNS, DDNS | IPv4, TCP/IP, UDP/IP, RTP, RTSP, NTP, HTTP, DHCP, FTP, SMTP, ICMP, IGMP, ARP, DNS, DDNS | IPv4, TCP/IP, UDP/IP, RTP, RTSP, NTP, HTTP, DHCP, FTP, SMTP, ICMP, IGMP, ARP, DNS, DDNS | IPv4, TCP/IP, UDP/IP, RTP, RTSP, NTP, HTTP, DHCP, FTP, SMTP, ICMP, IGMP, ARP, DNS, DDNS | IPv4/IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, ONVIF |
| Security | Password protection IP address filtering User access log | Password protection IP address filtering User access log | Password protection IP address filtering User access log | Password protection IP address filtering User access log | HTTPS(SSL) login authentication Digest login authentication IP address filtering, User access log |
| Protection | | | IP66 Grade | IP66 Grade | IP66 Grade, Vandal-resistant |
| Operating Temperature | -10˚C ~ +50˚C (+14°F ~ +122°F) | -10˚C ~ +50˚C (+14°F ~ +122°F) | -50˚C ~ +50˚C (-58°F ~ +122°F) | -50˚C ~ +50˚C (-58°F ~ +122°F) | -50˚C ~ +50˚C (-58°F ~ +122°F) |
| Operating Humidity | 20% ~ 80% RH | 20% ~ 80% RH | 20% ~ 80% RH (Waterproof) | 20% ~ 80% RH (Waterproof) | 20% ~ 80% RH (Waterproof) |
| Power Requirement | 24V AC | 24V AC | 24V AC | 24V AC | 24V AC, hPoE (IEEE802.3af) |

# CAMERA

Box
- **SNB-1000** CMOS Network Camera
- **SNB-2000** Network Camera
- **SNB-3000** WDR Network Camera
- **SNB-5000** 1.3Megapixel HD Network Camera

Dome
- **SND-1010** CMOS Network Dome Camera
- **SND-3080/3080F** WDR Network Dome Camera
- **SND-3080C/3080CF** Object Counting WDR Network Dome Camera
- **SND-5080/5080F** 1.3Megapixel HD Network Dome Camera

Vandal-Resistant Dome
- **SNV-3080** Vandal-Resistant Network Dome Camera
- **SNV-3120** 12x Vandal-Resistant Network Dome Camera
- **SNV-5010** 1.3Megapixel HD Vandal-Resistant Network Flat Camera
- **SNV-5080** 1.3Megapixel HD Vandal-Resistant Network Dome Camera

PTZ
- **SNP-3120/3120V/3120VH** 12x Indoor/Vandal-Resistant Network PTZ Camera
- **SNP-3301/3370** 30x/37x Network PTZ Camera
- **SNP-3301H/3370TH** 30x/37x Network PTZ Camera
- **SNP-3430H** 43x Network PTZ Camera

# SNB-1000

1/4" CMOS Network Camera

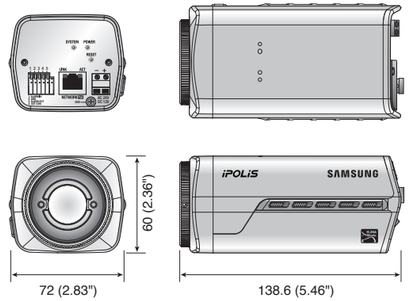
H.264 | VGA | PoE

## Features

- Max. VGA (640 x 480) resolution
- Max. 30(25)fps at all resolution
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streaming simultenously
- Progressive scan
- HTTPS security login support
- Alarm input 1ea / output 1ea
- PoE (Power over Ethernet)

## Dimensions

Unit : mm (inch)




## Technical Specifications

| | SNB-1000N | SNB-1000P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/4" PS CMOS | |
| Total Pixels | 656(H) x 488(V) | |
| Effective Pixels | 640(H) x 480(V) | |
| Scanning System | Progressive | |
| Min. Illumination | Color : 1.4Lux (F1.2, 50IRE), 0.17Lux (Sens-up 8x) | |
| S / N Ratio | 50dB | |
| LENS | | |
| Lens Type | Fixed iris | |
| Mount Type | C / CS | |
| OPERATIONAL | | |
| On Screen Display | English, French, German, Spanish, Italian, Korean<br>Chinese, Russian, Japanese, Danish, Swedish, Portuquese | |
| Motion Detection | Yes | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 8x) | |
| Gain Control | 2x, 4x, 8x, 16x, 32x | |
| White Balance | Auto / Manual | |
| Flip / Mirror | Off / On | |
| Alarm I/O | Input 1ea / Output 1ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 640 x 480, 320 x 240 | |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control<br>MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE,<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 5 users at unicast mode | |
| ONVIF Conformance | Yes | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | 0°C ~ +50°C (+32°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 2.5W | |
| MECHANICAL | | |
| Color / Material | Silver / Metal | |
| Dimension (WxHxD) | 72 x 60 x 138.6mm (2.83" x 2.36" x 5.46") | |
| Weight | 350g (0.77 lb) | |

A1 iPOLiS

# SNB-2000

1/3" Network Camera

H.264 | 4CIF | PoE

## Features

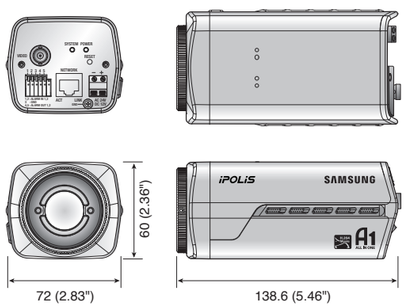
- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- XDR (eXtended Dynamic Range)
- Adaptive DNR (Digital Noise Reduction)
- Day & Night (Software)
- HTTPS security login support
- IPv4/IPv6 support
- PoE (Power over Ethernet)

## Technical Specifications

| | SNB-2000N | SNB-2000P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/3" Super HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive | |
| Synchronization | Internal | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x)<br>B/W : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x) | |
| S / N Ratio | 52dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Lens Type | Manual / Auto iris (Video / DC) | |
| Mount Type | C / CS | |
| OPERATIONAL | | |
| On Screen Display | English, French, Spanish, Portuguese, Japanese | English, French, German, Spanish, Italian, Chinese |
| Camera Title | Off / On (Displayed up to 54 characters) | |
| Day & Night | Auto / Day / Night (Software method) | |
| Backlight Compensation | Off / BLC | |
| Contrast Enhancement | XDR (eXtended Dynamic Range) - Off / Low / Middle / High | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Middle / High / User) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (12 Polygonal programmable zones, 4 point polygonal method) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | AGC (Low / Middle / High) | |
| White Balance | ATW1 / ATW2 / AWC / 3200K / 5600K | |
| Electronic Shutter Speed | Off / Auto (1/100 ~ 1/10Ksec) | Off / Auto (1/120 ~ 1/10Ksec) |
| Digital Zoom | 16x | |
| Flip / Mirror | Yes | |
| Profile | Standard / ITS / Backlight / Day & Night / Gaming / Custom | |
| PIP | Off / On | |
| Alarm I/O | Input 2ea / Output 2ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 7W | |
| MECHANICAL | | |
| Color / Material | Silver / Metal | |
| Dimension (WxHxD) | 72 x 60 x 138.6mm (2.83" x 2.36" x 5.46") | |
| Weight | 300g (0.66 lb) | |

## Dimensions

Unit : mm (inch)




A1 iPOLiS

# SNB-3000

1/3" WDR Network Camera

H.264 | 4CIF | WDR 128x 160x | D&N ICR | PoE

## Features

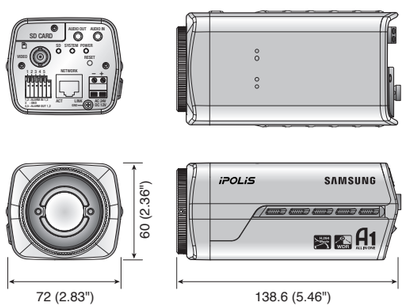
- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- True Day & Night (ICR)
- Bi-directional audio support
- SD memory slot for internal recording
- Intelligent video analytics
- PoE (Power over Ethernet)

## Technical Specifications

| | SNB-3000N | SNB-3000P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/3" Super HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (If WDR on, Interlaced scan) | |
| Synchronization | Internal | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x)<br>B/W : 0.04Lux (F1.2, 50IRE), 0.0001Lux (Sens-up 512x) | |
| S / N Ratio | 52dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Lens Type | Manual / Auto iris (Video / DC) | |
| Mount Type | C / CS | |
| OPERATIONAL | | |
| On Screen Display | English, French, Spanish, Portuguese, Japanese | English, French, German, Spanish, Italian, Chinese |
| Camera Title | Off / On (Displayed up to 54 characters) | |
| Day & Night | Auto / Day / Night (IR cut filter) | |
| Backlight Compensation | Off / BLC / WDR | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) - Off / Low / Middle / High | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Middle / High / User) | |
| Digital Image Stabilization | Off / On | |
| Privacy Masking | Off / On (12 Polygonal programmable zones, 4 point polygonal method) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | AGC (Low / Middle / High) | |
| White Balance | ATW1 / ATW2 / AWC / 3200K / 5600K | |
| Electronic Shutter Speed | Off / Auto (1/100 ~ 1/10Ksec) | Off / Auto (1/120 ~ 1/10Ksec) |
| Digital Zoom | 16x | |
| Flip / Mirror | Yes | |
| Profile | Standard / ITS / Backlight / Day & Night / Gaming / Custom | |
| Intelligent Video Analytics | Scene Change, Virtual Line, Enter/Exit, Appear/Disappear | |
| PIP | Off / On | |
| Alarm I/O | Input 2ea / Output 2ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | G.711 u-law | |
| Audio Communication | 2-Way | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 8W | |
| MECHANICAL | | |
| Color / Material | Silver / Metal | |
| Dimension (WxHxD) | 72 x 60 x 138.6mm (2.83" x 2.36" x 5.46") | |
| Weight | 300g (0.66 lb) | |

## Dimensions

Unit : mm (inch)



# SNB-5000

## 1/3" 1.3Megapixel HD Network Camera

H.264 | 1.3M | 16:9 HD | D&N ICR | PoE

## Features

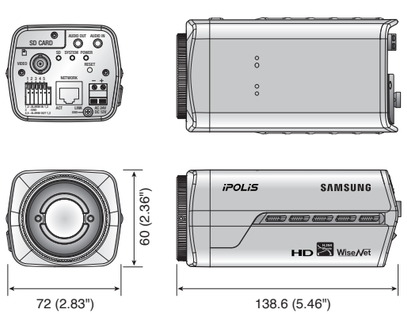
- Max. 1.3M (1280 x 1024) resolution
- 16 : 9 HD (720p) resolution support
- Max. 30fps at HD (720p) resolution (22fps at 1.3M (SXGA))
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streaming simultaneously
- Progressive scan • True Day & Night (ICR)
- Bi-directional audio support
- SD memory slot for internal recording
- Intelligent video analytics
- PoE (Power over Ethernet)

## Technical Specifications

| | SNB-5000N/P |
|---|---|
| VIDEO | |
| Imaging Device | 1/3" 1.3M PS CMOS |
| Total Pixels | 1,384(H) x 1,076(V) |
| Effective Pixels | 1,329(H) x 1,049(V) |
| Scanning System | Progressive |
| Min. Illumination | Color : 0.3Lux (F1.2, 50IRE), 0.005Lux (Sens-up 60x)<br>B/W : 0.01Lux (F1.2, 50IRE), 0.0002Lux (Sens-up 60x) |
| S / N Ratio | 50dB |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite |
| LENS | |
| Lens Type | Manual / DC auto iris |
| Mount Type | C / CS |
| OPERATIONAL | |
| On Screen Display | English, French, German, Spanish, Italian, Chinese, Korean,<br>Russian, Japanese, Swedish, Danish, Portuguese |
| Camera Title | Off / On (Displayed up to 15 characters) |
| Day & Night | Auto (ICR) / Color / B/W |
| Backlight Compensation | Off / BLC / HLC |
| Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) |
| Digital Noise Reduction | SSNRIII (2D+3D noise filter) (Off / On) |
| Privacy Masking | Off / On (12 Programmable zones) |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 60x) |
| Gain Control | Off / Low / Medium / High / Manual |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| Electronic Shutter Speed | Auto / A.FLK / Manual (1/30 ~ 30,000sec) |
| Flip / Mirror | Off / On |
| Intelligent Video Analytics | Scene change, Virtual line, Enter / Exit, Appear / Disappear |
| Alarm I/O | Input 1ea / Output 1ea (Relay) |
| NETWORK | |
| Ethernet | RJ-45 (10/100BASE-T) |
| Video Compression Format | H.264, MPEG-4, MJPEG |
| Resolution | 1280 x 1024, 1280 x 720P (HD), 800 x 600, 640 x 480, 320 x 240 |
| Max. Framerate | 22fps (1280 x 1024), 30fps (720P HD) |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR |
| Streaming Capability | Multiple streaming (Up to 10 profiles) |
| Audio I/O | Line in / Line out |
| Audio Compression Format | G.711 u-law |
| Audio Communication | 2-Way |
| IP | IPv4, IPv6 |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 10 users at unicast mode |
| Memory Slot | SD/SDHC memory slot |
| ONVIF Conformance | Yes |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari |
| Central Management Software | NET-i viewer |
| ENVIRONMENTAL | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH |
| ELECTRICAL | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) |
| Power Consumption | Max. 6W |
| MECHANICAL | |
| Color / Material | Dark gray / Metal |
| Dimension (WxHxD) | 72 x 60 x 138.6mm (2.83" x 2.36" x 5.46") |
| Weight | 300g (0.66 lb) |

## Dimensions

Unit : mm (inch)






# SND-1010

## 1/4" CMOS Network Dome Camera

H.264 | VGA | 2.9mm | PoE

## Features

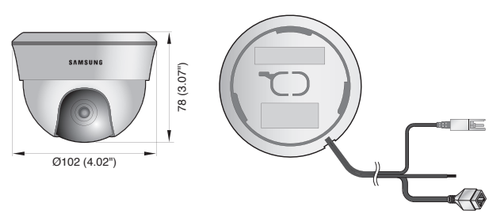
- Max. VGA (640 x 480) resolution
- Max. 30(25)fps at all resolution
- Built-in 2.9mm fixed (F2.0) lens
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streamings simultenously
- Progressive scan
- HTTPS security login support
- Alarm input 1ea / output 1ea
- PoE (Power over Ethernet)

## Technical Specifications

| | SND-1010N | SND-1010P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/4" PS CMOS | |
| Total Pixels | 656(H) x 488(V) | |
| Effective Pixels | 640(H) x 480(V) | |
| Scanning System | Progressive | |
| Min. Illumination | Color : 1.4Lux (F1.2, 50IRE), 0.17Lux (Sens-up 8x) | |
| S / N Ratio | 50dB | |
| LENS | | |
| Focal Length (Zoom Ratio) | 2.9mm | |
| Max. Aperture Ratio | F2.0 | |
| Angular Field of View | H : 68°, V : 50°, D : 85° | |
| Lens Type | Fixed Iris | |
| Mount Type | Board-in type | |
| OPERATIONAL | | |
| On Screen Display | English, French, German, Spanish, Italian, Korean<br>Chinese, Russian, Japanese, Danish, Swedish, Portuguese | |
| Backlight Compensation | Off / On | |
| Motion Detection | Yes | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 8x) | |
| Gain Control | 2x, 4x, 8x, 16x, 32x | |
| White Balance | Auto / Manual | |
| Flip / Mirror | Off / On | |
| Alarm I/O | Input 1ea / Output 1ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 640 x 480, 320 x 240 | |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control<br>MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE,<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 5 users at unicast mode | |
| ONVIF Conformance | Yes | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | 0°C ~ +50°C (+32°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 2.5W | |
| MECHANICAL | | |
| Color / Material | White / Plastic | |
| Dimension (WxH) | Ø102 x 78mm (Ø4.02" x 3.07") | |
| Weight | 200g (0.44 lb) | |

## Dimensions

Unit : mm (inch)



# SND-3080/3080F

## 1/3" WDR Network Dome Camera

SND-3080 SND-3080F

H.264 | 4CIF | 3.9x V/F Lens | WDR 128x 160x | PoE

## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- Day & Night (Software)
- 2.8 ~ 11mm varifocal lens
- SD memory slot for internal recording
- PoE (Power over Ethernet)

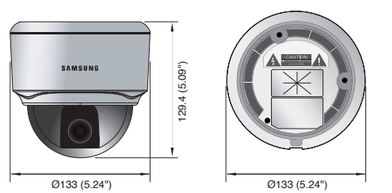
## Technical Specifications

| | SND-3080(F)N | SND-3080(F)P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/3" Super HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (If WDR on, Interlaced scan) | |
| Synchronization | Internal | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x)<br>B/W : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x) | |
| S / N Ratio | 52dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Focal Length (Zoom Ratio) | 2.8 ~ 11mm (3.9x) Vari-focal | |
| Max. Aperture Ratio | F1.2 | |
| Angular Field of View | H : 94.6°(Wide) ~ 28.8°(Tele), V : 68.4°(Wide) ~ 21.6°(Tele) | |
| Lens Type | DC auto iris | |
| Mount Type | Board type | |
| PAN / TILT / ROTATE | | |
| Pan Range | 0° ~ 355° | |
| Tilt Range | 0° ~ 90° | |
| Rotate Range | 0° ~ 355° | |
| OPERATIONAL | | |
| On Screen Display | English, French, Spanish, Portuguese, Japanese | English, French, German, Spanish, Italian, Chinese |
| Camera Title | Off / On (Displayed up to 54 characters) | |
| Day & Night | Auto / Day / Night (Software method) | |
| Backlight Compensation | Off / BLC / WDR | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) - Off / Low / Middle / High | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Middle / High / User) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (12 Polygonal programmable zones, 4 point polygonal method) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | AGC (Low / Middle / High) | |
| White Balance | ATW1 / ATW2 / AWC / 3200K / 5600K | |
| Electronic Shutter Speed | Off / Auto (1/100 ~ 1/10Ksec) | Off / Auto (1/120 ~ 1/10Ksec) |
| Digital Zoom | 16x | |
| Flip / Mirror | Yes | |
| Profile | Standard / ITS / Backlight / Day & Night / Gaming / Custom | |
| PIP | Off / On | |
| Alarm I/O | Input 2ea / Output 2ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 7W | |
| MECHANICAL | | |
| Color / Material | White / Plastic | |
| Dimension (WxH) | SND-3080 : Ø133 x 129.4mm (Ø5.24" x 5.09")<br>SND-3080F : Ø155.9 x 126mm (Ø6.14" x 4.96") (Flush mounting type) | |
| Weight | SND-3080 : 523g (1.15 lb)<br>SND-3080F : 650g (1.43 lb) | |

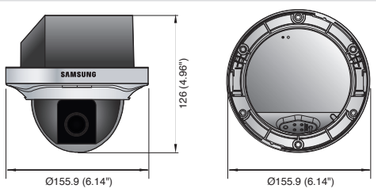
## Dimensions

Unit : mm (inch)

SND-3080




SND-3080F






# SND-3080C/3080CF

## 1/3" Object Counting WDR Network Dome Camera

SND-3080C SND-3080CF

H.264 | 4CIF | 3.9x V/F Lens | WDR 128x 160x | Object Counting | PoE

## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- Day & Night (Software)
- 2.8 ~ 11mm varifocal lens
- Object counting
- SD memory slot for internal recording
- PoE (Power over Ethernet)

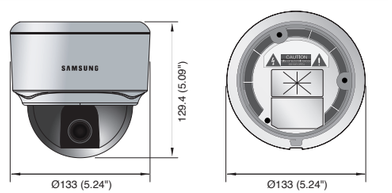
## Technical Specifications

| | SND-3080C(F)N | SND-3080C(F)P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/3" Super HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (If WDR on, Interlaced scan) | |
| Synchronization | Internal | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x)<br>B/W : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x) | |
| S / N Ratio | 52dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Focal Length (Zoom Ratio) | 2.8 ~ 11mm (3.9x) Vari-focal | |
| Max. Aperture Ratio | F1.2 | |
| Angular Field of View | H : 94.6°(Wide) ~ 28.8°(Tele), V : 68.4°(Wide) ~ 21.6°(Tele) | |
| Lens Type | DC auto iris | |
| Mount Type | Board type | |
| PAN / TILT / ROTATE | | |
| Pan Range | 0° ~ 355° | |
| Tilt Range | 0° ~ 90° | |
| Rotate Range | 0° ~ 355° | |
| OPERATIONAL | | |
| On Screen Display | English, French, Spanish, Portuguese, Japanese | English, French, German, Spanish, Italian, Chinese |
| Camera Title | Off / On (Displayed up to 54 characters) | |
| Day & Night | Auto / Day / Night (Software method) | |
| Backlight Compensation | Off / BLC / WDR | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) - Off / Low / Middle / High | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Middle / High / User) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (12 Polygonal programmable zones, 4 point polygonal method) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | AGC (Low / Middle / High) | |
| White Balance | ATW1 / ATW2 / AWC / 3200K / 5600K | |
| Electronic Shutter Speed | Off / Auto (1/100 ~ 1/10Ksec) | Off / Auto (1/120 ~ 1/10Ksec) |
| Digital Zoom | 16x | |
| Flip / Mirror | Yes | |
| Profile | Standard / ITS / Backlight / Day & Night / Gaming / Custom | |
| Intelligent Video Analytics | Object counting (Line-based counting, Area-based counting) | |
| PIP | Off / On | |
| Alarm I/O | Input 2ea / Output 2ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 7W | |
| MECHANICAL | | |
| Color / Material | White / Plastic | |
| Dimension (WxH) | SND-3080C : Ø133 x 129.4mm (Ø5.24" x 5.09")<br>SND-3080CF : Ø155.9 x 126mm (Ø6.14" x 4.96") (Flush mounting type) | |
| Weight | SND-3080C : 523g (1.15 lb)<br>SND-3080CF : 650g (1.43 lb) | |

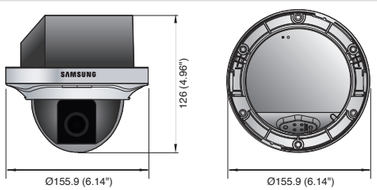
## Dimensions

Unit : mm (inch)

SND-3080C




SND-3080CF



# SND-5080/5080F

## 1/3" 1.3Megapixel HD Network Dome Camera

SND-5080 SND-5080F

H.264 | 1.3M | 16:9 HD | 3.6x V/F Lens | D&N ICR | PoE

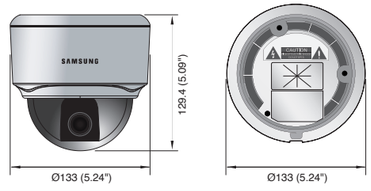
## Features

- Max. 1.3M (1280 x 1024) resolution
- 16 : 9 HD (720p) resolution support
- Max. 30fps at HD (720p) resolution (22fps at 1.3M (SXGA))
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streaming simultaneously
- Progressive scan • True Day & Night (ICR)
- 2.8 ~ 10mm Megapixel varifocal lens (F1.2)
- Bi-directional audio support
- SD memory slot for internal recording
- Intelligent video analytics
- PoE (Power over Ethernet)

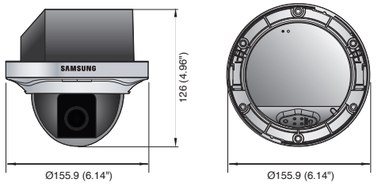
## Dimensions

Unit : mm (inch)

SND-5080




SND-5080F




## Technical Specifications

ONVIF

| | SND-5080(F)N/P |
|---|---|
| **VIDEO** | |
| Imaging Device | 1/3" 1.3M PS CMOS |
| Total Pixels | 1,384(H) x 1,076(V) |
| Effective Pixels | 1,329(H) x 1,049(V) |
| Scanning System | Progressive |
| Min. Illumination | Color : 0.3Lux (F1.2, 50IRE), 0.005Lux (Sens-up 60x)<br>B/W : 0.01Lux (F1.2, 50IRE), 0.0002Lux (Sens-up 60x) |
| S / N Ratio | 50dB |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite |
| **LENS** | |
| Focal Length (Zoom Ratio) | 2.8 ~ 10mm (3.6x) Vari-focal |
| Max. Aperture Ratio | F1.2 |
| Angular Field of View | H : 94.6°(Wide) ~ 28.8°(Tele), V : 68.4°(Wide) ~ 21.6°(Tele) |
| Lens Type | DC auto iris |
| Mount Type | Board type |
| **PAN / TILT / ROTATE** | |
| Pan Range | 0° ~ 355° |
| Tilt Range | 0° ~ 90° |
| Rotate Range | 0° ~ 355° |
| **OPERATIONAL** | |
| On Screen Display | English, French, German, Spanish, Italian, Chinese, Korean,<br>Russian, Japanese, Swedish, Danish, Portuguese |
| Camera Title | Off / On (Displayed up to 15 characters) |
| Day & Night | Auto (ICR) / Color / B/W |
| Backlight Compensation | Off / BLC / HLC |
| Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) |
| Digital Noise Reduction | SSNRIII (2D+3D noise filter) (Off / On) |
| Privacy Masking | Off / On (12 Programmable zones) |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 60x) |
| Gain Control | Off / Low / Medium / High / Manual |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| Electronic Shutter Speed | Auto / A.FLK / Manual (1/30 ~ 30,000sec) |
| Flip / Mirror | Off / On |
| Intelligent Video Analytics | Scene change, Virtual line, Enter / Exit, Appear / Disappear |
| Alarm I/O | Input 1ea / Output 1ea (Relay) |
| **NETWORK** | |
| Ethernet | RJ-45 (10/100BASE-T) |
| Video Compression Format | H.264, MPEG-4, MJPEG |
| Resolution | 1280 x 1024, 1280 x 720P (HD), 800 x 600, 640 x 480, 320 x 240 |
| Max. Framerate | 22fps (1280 x 1024), 30fps (720P HD) |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR |
| Streaming Capability | Multiple streaming (Up to 10 profiles) |
| Audio I/O | Line in / Line out |
| Audio Compression Format | G.711 u-law |
| Audio Communication | 2-Way |
| IP | IPv4, IPv6 |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 10 users at unicast mode |
| Memory Slot | SD/SDHC memory slot |
| ONVIF Conformance | Yes |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari |
| Central Management Software | NET-i viewer |
| **ENVIRONMENTAL** | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH |
| **ELECTRICAL** | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) |
| Power Consumption | Max. 7W |
| **MECHANICAL** | |
| Color / Material | White / Plastic |
| Dimension (WxH) | SND-5080 : Ø133 x 129.4mm (Ø5.24" x 5.09")<br>SND-5080F : Ø155.9 x 126mm (Ø6.14" x 4.96") (Flush mounting type) |
| Weight | SND-5080 : 523g (1.15 lb)<br>SND-5080F : 650g (1.43 lb) |



# SNV-3080

## 1/3" WDR Vandal-Resistant Network Dome Camera

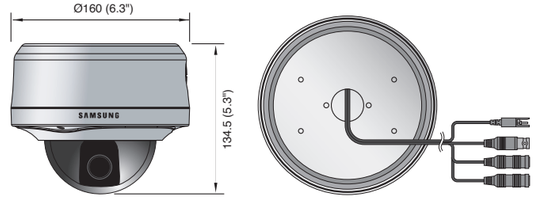
H.264 | 4CIF | 3.9x V/F Lens | WDR 128x 160x | D&N ICR | PoE

## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- True Day & Night (ICR)
- 2.8 ~ 11mm varifocal lens
- SD memory slot for internal recording
- Fan/Heater built-in for outdoor installation
- Surface/flush mounting selectable
- IP66 • PoE (Power over Ethernet)

## Dimensions

Unit : mm (inch)




## Technical Specifications

| | SNV-3080N | SNV-3080P |
|---|---|---|
| **VIDEO** | | |
| Imaging Device | 1/3" Super HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (If WDR on, Interlaced scan) | |
| Synchronization | Internal | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.4Lux (F1.2, 50IRE), 0.001Lux (Sens-up 512x)<br>B/W : 0.04Lux (F1.2, 50IRE), 0.0001Lux (Sens-up 512x) | |
| S / N Ratio | 52dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| **LENS** | | |
| Focal Length (Zoom Ratio) | 2.8 ~ 11mm (3.9x) Vari-focal | |
| Max. Aperture Ratio | F1.2 | |
| Angular Field of View | H : 94.6°(Wide) ~ 28.8°(Tele), V : 68.4°(Wide) ~ 21.6°(Tele) | |
| Lens Type | DC auto iris | |
| Mount Type | Board type | |
| **PAN / TILT / ROTATE** | | |
| Pan Range | 0° ~ 355° | |
| Tilt Range | 0° ~ 90° | |
| Rotate Range | 0° ~ 355° | |
| **OPERATIONAL** | | |
| On Screen Display | English, French, Spanish, Portuguese, Japanese | English, French, German, Spanish, Italian, Chinese |
| Camera Title | Off / On (Displayed up to 54 characters) | |
| Day & Night | Auto / Day / Night (IR cut filter) | |
| Backlight Compensation | Off / BLC / WDR | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) - Off / Low / Middle / High | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Middle / High / User) | |
| Digital Image Stabilization | Off / On | |
| Privacy Masking | Off / On (12 Polygonal programmable zones, 4 point polygonal method) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | AGC (Low / Middle / High) | |
| White Balance | ATW1 / ATW2 / AWC / 3200K / 5600K | |
| Electronic Shutter Speed | Off / Auto (1/100 ~ 1/10Ksec) | Off / Auto (1/120 ~ 1/10Ksec) |
| Digital Zoom | 16x | |
| Flip / Mirror | Yes | |
| Profile | Standard / ITS / Backlight / Day & Night / Gaming / Custom | |
| Intelligent Video Analytics | Scene change, Virtual line, Enter/Exit, Appear/Disappear | |
| PIP | Off / On | |
| Alarm I/O | Input 2ea / Output 2ea (Relay) | |
| **NETWORK** | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | G.711 u-law | |
| Audio Communication | 2-Way | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| **ENVIRONMENTAL** | | |
| Operating Temperature / Humidity | -40°C ~ +50°C (-40°F ~ +122°F) / 20% ~ 80% RH | |
| Ingress Protection | IP66 Grade (Waterproof) | |
| **ELECTRICAL** | | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 8W (Heater off), Max. 11W (Heater on) | |
| **MECHANICAL** | | |
| Color / Material | Light gray / Aluminum | |
| Dimension (WxH) | Ø160 x 134.5mm (Ø6.3" x 5.3") | |
| Weight | 1.28Kg (2.82 lb) | |

# SNV-3120

## 1/4" 12x WDR Vandal-Resistant Network Dome Camera

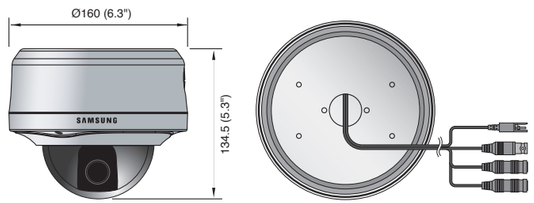
H.264 | 4CIF | 12x A/F Lens | WDR 128x 160x | D&N ICR | PoE

## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- True Day & Night (ICR)
- Powerful 12x optical zoom (16x digital zoom)
- SD memory slot for internal recording
- Fan/Heater built-in for outdoor installation
- Surface/flush mounting selectable
- IP66 • PoE (Power over Ethernet)

## Dimensions

Unit : mm (inch)




## Technical Specifications

ONVIF

| | SNV-3120N | SNV-3120P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/4" Ex-view HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (If WDR on, Interlaced scan) | |
| Synchronization | Internal / Line lock | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.7Lux (F1.65, 50IRE), 0.0014Lux (Sens-up 512x)<br>B/W : 0.07Lux (F1.65, 50IRE), 0.00014Lux (Sens-up 512x) | |
| S / N Ratio | 50dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Focal Length (Zoom Ratio) | 3.69 ~ 44.32mm (12x) | |
| Max. Aperture Ratio | F1.65(Wide) / F2.01(Tele) | |
| Angular Field of View | H : 54.44°(Wide) ~ 4.64°(Tele), V : 41.42°(Wide) ~ 3.52°(Tele) | |
| Min. Object Distance | 0.2m (Wide) / 0.8m (Tele) | |
| Focus Control | AF / One-shot AF / Manual | |
| Lens Type | DC auto iris | |
| Mount Type | Board type | |
| PAN / TILT / ROTATE | | |
| Pan Range | 0° ~ 355° | |
| Tilt Range | 0° ~ 90° | |
| Rotate Range | 0° ~ 355° | |
| Preset | 255ea | |
| Preset Accuracy | ±0.1° | |
| OPERATIONAL | | |
| On Screen Display | English, French, Spanish, Korean, Portuguese, Japanese, Taiwanese | English, French, German, Spanish, Italian, Chinese, Portuguese, Russian, Swedish, Danish, Rumanian, Czech, Turkish, Polish |
| Camera Title | Off / On (Displayed up to 54 characters) | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | Off / BLC / WDR | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) - Off / Low / Medium / High | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Medium / High) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (12 Polygonal programmable zones) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | Off / Low / Medium / High / Manual | |
| White Balance | ATW (In) / ATW (Out) / AWC / Manual | |
| Electronic Shutter Speed | 1/60 ~ 1/10Ksec | 1/50 ~ 1/10Ksec |
| Digital Zoom | 16x | |
| Flip / Mirror | Digital flip | |
| VPS | Off / On | |
| Intelligent Video Analytics | Moved / Fixed | |
| Alarm I/O | Input 1ea / Output 1ea (Relay) | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240, 320 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | G.711 u-law | |
| Audio Communication | 2-Way | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| ONVIF Conformance | Yes | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -40°C ~ +50°C (-40°F ~ +122°F) / 20% ~ 80% RH | |
| Ingress Protection | IP66 Grade (Waterproof) | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 8W (Heater off), Max. 11W (Heater on) | |
| MECHANICAL | | |
| Color / Material | Light gray / Aluminum | |
| Dimension (WxH) | Ø160 x 134.5mm (Ø6.3" x 5.3") | |
| Weight | 1.5Kg (3.31 lb) | |



# SNV-5010

## 1/3" 1.3Megapixel HD Network Vandal-Resistant Flat Camera

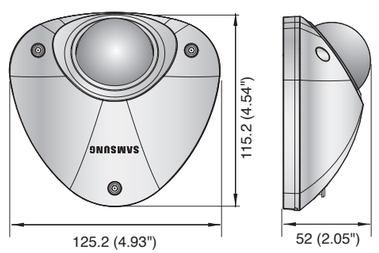
H.264 | 1.3M | 16:9 HD | 3mm | PoE

## Features

- Max. 1.3M (1280 x 1024) resolution
- 16 : 9 HD (720p) resolution support
- Max. 30fps at HD (720p) resolution (22fps at 1.3M (SXGA))
- Built-in 3mm megapixel fixed (F1.8) lens
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streaming simultaneously
- Progressive scan
- Intelligent video analytics
- IP66 • PoE (Power over Ethernet)

## Dimensions

Unit : mm (inch)




## Technical Specifications

ONVIF

| | SNV-5010NP |
|---|---|
| VIDEO | |
| Imaging Device | 1/3" 1.3M PS CMOS |
| Total Pixels | 1,384(H) x 1,076(V) |
| Effective Pixels | 1,329(H) x 1,049(V) |
| Scanning System | Progressive |
| Min. Illumination | Color : 1Lux (F1.8, 50IRE), 0.016Lux (Sens-up 60x) |
| S / N Ratio | 50dB |
| Video Output | DIP connector |
| LENS | |
| Focal Length (Zoom Ratio) | 3mm |
| Max. Aperture Ratio | F1.8 |
| Angular Field of View | H : 91.2°, V : 72.3° |
| Lens Type | Fixed iris |
| Mount Type | Board type |
| PAN / TILT / ROTATE | |
| Pan Range | -10° ~ 10° |
| Tilt Range | 0° ~ 90° |
| OPERATIONAL | |
| On Screen Display | English, French, German, Spanish, Italian, Chinese, Korean<br>Russian, Japanese, Swedish, Danish, Portuguese |
| Camera Title | Off / On (Displayed up to 15 characters) |
| Backlight Compensation | Off / BLC / HLC |
| Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) |
| Digital Noise Reduction | SSNRIII (2D+3D noise filter) (Off / On) |
| Privacy Masking | Off / On (12 Programmable zones) |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 60x) |
| Gain Control | Off / Low / Medium / High / Manual |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| Electronic Shutter Speed | Auto / A.FLK / Manual (1/30 ~ 30,000sec) |
| Flip / Mirror | Off / On |
| Intelligent Video Analytics | Scene change, Virtual line, Enter / Exit, Appear / Disappear |
| Alarm I/O | Input 1ea / Output 1ea (Relay) |
| NETWORK | |
| Ethernet | RJ-45 (10/100BASE-T) |
| Video Compression Format | H.264, MPEG-4, MJPEG |
| Resolution | 1280 x 1024, 1280 x 720P (HD), 800 x 600, 640 x 480, 320 x 240 |
| Max. Framerate | 22fps (1280 x 1024), 30fps (720P HD) |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR |
| Streaming Capability | Multiple streaming (Up to 10 profiles) |
| IP | IPv4, IPv6 |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 10 users at unicast mode |
| ONVIF Conformance | Yes |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari |
| Central Management Software | NET-i viewer |
| ENVIRONMENTAL | |
| Operating Temperature / Humidity | -10°C ~ +50°C (-14°F ~ +122°F) / 20% ~ 80% RH |
| Ingress Protection | IP66 Grade (Waterproof) |
| ELECTRICAL | |
| Input Voltage / Current | 12V DC, PoE (IEEE802.3af) |
| Power Consumption | Max. 6W |
| MECHANICAL | |
| Color / Material | Ivory / Aluminum |
| Dimension (WxHxD) | 125.2 x 52 x 115.2mm (4.93" x 2.05" x 4.54") |
| Weight | TBD |

# SNV-5080

## 1/3" 1.3Megapixel HD Vandal-Resistant Network Dome Camera

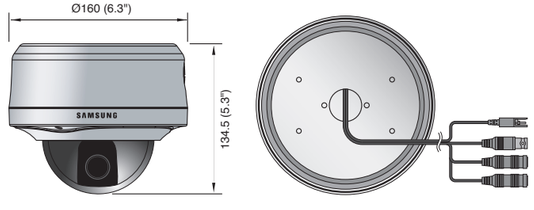
H.264 | 1.3M | 16:9 HD | 3.6x V/F Lens | D&N ICR | PoE

## Features

- Max. 1.3M (1280 x 1024) resolution
- 16 : 9 HD (720p) resolution support
- Max. 30fps at HD (720p) resolution (22fps at 1.3M (SXGA))
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streaming simultaneously
- Progressive scan • True Day & Night (ICR)
- 2.8 ~ 10mm megapixel varifocal lens (F1.2)
- Bi-directional audio support • SD memory slot for internal recording
- Intelligent video analytics • HTTPS security login support
- Fan/Heater built-in for outdoor installation
- Surface/flush mounting selectable
- IP66 • PoE (Power over Ethernet)

## Dimensions

Unit : mm (inch)




## Technical Specifications

ONVIF

| | SNV-5080N/P |
|---|---|
| **VIDEO** | |
| Imaging Device | 1/3" 1.3M PS CMOS |
| Total Pixels | 1,384(H) x 1,076(V) |
| Effective Pixels | 1,329(H) x 1,049(V) |
| Scanning System | Progressive |
| Min. Illumination | Color : 0.3Lux (F1.2, 50IRE), 0.005Lux (Sens-up 60x)<br>B/W : 0.01Lux (F1.2, 50IRE), 0.0002Lux (Sens-up 60x) |
| S / N Ratio | 50dB |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite |
| **LENS** | |
| Focal Length (Zoom Ratio) | 2.8 ~ 10mm (3.6x) Vari-focal |
| Max. Aperture Ratio | F1.2 |
| Angular Field of View | H : 94.6°(Wide) ~ 28.8°(Tele), V : 68.4°(Wide) ~ 21.6°(Tele) |
| Lens Type | DC auto iris |
| Mount Type | Board type |
| **PAN / TILT / ROTATE** | |
| Pan Range | 0° ~ 355° |
| Tilt Range | 0° ~ 90° |
| Rotate Range | 0° ~ 355° |
| **OPERATIONAL** | |
| On Screen Display | English, French, German, Spanish, Italian, Chinese, Korean,<br>Russian, Japanese, Swedish, Danish, Portuguese |
| Camera Title | Off / On (Displayed up to 15 characters) |
| Day & Night | Auto (ICR) / Color / B/W |
| Backlight Compensation | Off / BLC / HLC |
| Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) |
| Digital Noise Reduction | SSNRIII (2D+3D noise filter) (Off / On) |
| Privacy Masking | Off / On (12 Programmable zones) |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 60x) |
| Gain Control | Off / Low / Medium / High / Manual |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| Electronic Shutter Speed | Auto / A.FLK / Manual (1/30 ~ 30,000sec) |
| Flip / Mirror | Off / On |
| Intelligent Video Analytics | Scene change, Virtual line, Enter / Exit, Appear / Disappear |
| Alarm I/O | Input 1ea / Output 1ea (Relay) |
| **NETWORK** | |
| Ethernet | RJ-45 (10/100BASE-T) |
| Video Compression Format | H.264, MPEG-4, MJPEG |
| Resolution | 1280 x 1024, 1280 x 720P (HD), 800 x 600, 640 x 480, 320 x 240 |
| Max. Framerate | 22fps (1280 x 1024), 30fps (720P HD) |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR |
| Streaming Capability | Multiple streaming (Up to 10 profiles) |
| Audio I/O | Line in / Line out |
| Audio Compression Format | G.711 u-law |
| Audio Communication | 2-Way |
| IP | IPv4, IPv6 |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 10 users at unicast mode |
| Memory Slot | SD/SDHC memory slot |
| ONVIF Conformance | Yes |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari |
| Central Management Software | NET-i viewer |
| **ENVIRONMENTAL** | |
| Operating Temperature / Humidity | -40°C ~ +50°C (-40°F ~ +122°F) / 20% ~ 80% RH |
| Ingress Protection | IP66 Grade (Waterproof) |
| **ELECTRICAL** | |
| Input Voltage / Current | 12V DC, 24V AC, PoE (IEEE802.3af) |
| Power Consumption | Max. 8W (Heater off), Max. 11W (Heater on) |
| **MECHANICAL** | |
| Color / Material | Light gray / Aluminum |
| Dimension (WxH) | Ø160 x 134.5mm (Ø6.3" x 5.3") |
| Weight | 1.28Kg (2.82 lb) |



# SNP-3120/3120V/3120VH

## 1/4" 12x Network PTZ Dome Camera

H.264 | 4CIF | 12x A/F Lens | WDR 128x 160x | D&N ICR | hPoE

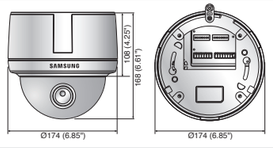
## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- True Day & Night (ICR)
- Powerful 12x optical zoom (16x digital zoom)
- SD memory slot for internal recording
- Bi-directional audio support
- Surface/flush mounting selectable
- Fan/Heater built-in for outdoor installation : SNP-3120VH
- IP66 : SNP-3120V/3120VH • hPoE (High Power over Ethernet)

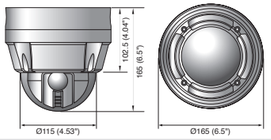
## Dimensions

Unit : mm (inch)

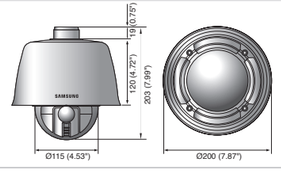
SNP-3120




SNP-3120V




SNP-3120VH




## Technical Specifications

ONVIF

| | SNP-3120N/VN/VHN | SNP-3120P/VP/VHP |
|---|---|---|
| **VIDEO** | | |
| Imaging Device | 1/4" Ex-view HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (VPS on) (If WDR on, Interlaced scan) | |
| Synchronization | Internal / Line lock | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.7Lux (F1.65, 50IRE), 0.001Lux (Sens-up 512x),<br>B/W : 0.07Lux (F1.65, 50IRE), 0.0001Lux (Sens-up 512x) | |
| S / N Ratio | 50dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| **LENS** | | |
| Focal Length (Zoom Ratio) | 3.69 ~ 44.32mm (12x) | |
| Max. Aperture Ratio | F1.65(Wide) / F2.01(Tele) | |
| Angular Field of View | H : 54.44°(Wide) ~ 4.62°(Tele), V : 42.32°(Wide) ~ 3.58°(Tele) | |
| Min. Object Distance | 0.2m(Wide) / 0.8m(Tele) | |
| Focus Control | AF / One-shot AF / Manual | |
| Lens Type | DC auto iris | |
| **PAN / TILT / ROTATE** | | |
| Pan Range | 360° Endless | |
| Pan Speed | Preset : 650°/sec, Manual : 0.05°/sec ~120°/sec (Turbo : 200°/sec) | |
| Tilt Range | -5°~185° | |
| Tilt Speed | Preset : 650°/sec, Manual : 0.05°/sec ~120°/sec | |
| Preset | 255ea | |
| Preset Accuracy | ±0.1° | |
| **OPERATIONAL** | | |
| On Screen Display | English, French, German, Spanish,<br>Italian, Korean, Portuguese | English, French, German, Spanish,<br>Italian, Chinese, Portuguese |
| Camera Title | Off / On (Displayed up to 12 characters) | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | Off / BLC / WDR | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) (Off / Low / Medium / High) | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Medium / High) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (12 Polygonal programmable zones) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | Off / Low / Medium / High / Manual | |
| White Balance | ATW (In) / ATW (Out) / AWC / Manual | |
| Electronic Shutter Speed | Off / A.FLK / Manual (1/120 ~ 1/10Ksec) | |
| Digital Zoom | 16x | |
| Flip / Mirror | Digital flip | |
| VPS | Off / On | |
| Intelligent Video Analytics | Moved / Fixed | |
| Alarm I/O | Input 2ea / Output 2ea (Relay) | |
| Remote Control Interface | RS-485, CCVC (PELCO coaxitron) | |
| RS-485 Protocol | Samsung-T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vicon, GE, Bosch | |
| **NETWORK** | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240, 320 x 240 | 704 x 576, 640 x 480, 352 x 288, 320 x 240 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | G.711 u-law | |
| Audio Communication | 2-Way | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) Login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| ONVIF Conformance | Yes | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari | |
| Central Management Software | NET-i viewer | |
| **ENVIRONMENTAL** | | |
| Operating Temperature / Humidity | SNP-3120 : -10°C ~ +50°C (+14°F ~ +122°F) / Less than 90% RH<br>SNP-3120V/3120VH : -50°C ~ +50°C (-58°F ~ +122°F) / Less than 90% RH | |
| Ingress Protection | IP66 (SNP-3120V/3120VH) *Not supported by SNP-3120 | |
| **ELECTRICAL** | | |
| Input Voltage / Current | 24V AC, hPoE(IEEE802.3at) | |
| Power Consumption | SNP-3120 : Max. 15W, SNP-3120V/3120VH : Max. 15W (Heater off), Max. 45W (Heater on) | |
| **MECHANICAL** | | |
| Color / Material | SNP-3120 : Ivory / Plastic, SNP-3120V : Ivory / Aluminum (Vandal-Resistant type)<br>SNP-3120VH : Ivory / Aluminum (Vandal-resistance type), Sun-shield built-in | |
| Dimension (WxH) | SNP-3120 : Ø174 x 168mm (Ø6.85" x 6.61"), SNP-3120V : Ø165 x 165mm (Ø6.5" x 6.5")<br>SNP-3120VH : Ø200 x 203mm (Ø7.87" x 7.99") | |
| Weight | SNP-3120 : 1.2Kg (2.65 lb), SNP-3120V : 1.9Kg (4.19 lb), SNP-3120VH : 2.4Kg (5.29 lb) | |

# SNP-3301/3370

1/4" 30x/37x Network PTZ Dome Camera

H.264 | 4CIF | 30x 37x A/F Lens | WDR 128x 160x | D&N ICR

## Features

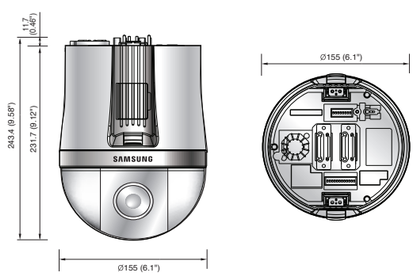
- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG multiple encoding
- WDR (Wide Dynamic Range), 3D noise filter (SSNRII)
- True Day & Night (ICR)
- Powerful 30x/37x optical zoom (12x digital zoom)
- Bi-directional audio support
- SD memory slot for internal recording

## Technical Specifications

| | SNP-3301N/3370N | SNP-3301P/3370P |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/4" Vertical double density interline transfer CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Interlaced | |
| Synchronization | Internal / Line lock | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 550TV lines | |
| Min. Illumination | Color : 0.7Lux (F1.6, 50IRE), 0.0027Lux (Sens-up 256x)<br>B/W : 0.03Lux (F1.6, 50IRE), 0.0001Lux (Sens-up 256x) | |
| S / N Ratio | 50dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Focal Length (Zoom Ratio) | SNP-3301 : 3.5 ~ 105mm (30x), SNP-3370 : 3.5 ~ 129.5mm (37x) | |
| Max. Aperture Ratio | SNP-3301 : F1.6(Wide) / F3.6(Tele), SNP-3370 : F1.6(Wide) / F3.9(Tele) | |
| Angular Field of View | H : 55.5°(Wide) ~ 1.59°(Tele) / V : 42.5°(Wide) ~ 1.19°(Tele) | |
| Min. Object Distance | 1.8m (5.91ft) | |
| Focus Control | AF / One-shot AF / Manual | |
| Zoom Movement Speed | SNP-3301 : 2.2x/sec, SNP-3370 : 2.5x/sec | |
| Lens Type | DC auto iris | |
| Mount Type | Board-in type | |
| PAN / TILT / ROTATE | | |
| Pan Range | 360° Endless | |
| Pan Speed | Preset : 500°/sec, Manual : 0.024°/sec ~120°/sec | |
| Tilt Range | 190° (-5° ~ 185°) | |
| Tilt Speed | Preset : 500°/sec, Manual : 0.024°/sec ~120°/sec | |
| Preset | 255ea | |
| Preset Accuracy | ±0.1° | |
| OPERATIONAL | | |
| On Screen Display | English | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | Off / BLC / WDR / HLC | |
| Wide Dynamic Range | 128x | 160x |
| Digital Noise Reduction | 3D noise filter (Off / Low / Medium / High) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (8 Programmable zones) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 256x) | |
| Gain Control | Off / Low / Medium / High | |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor | |
| Electronic Shutter Speed | Auto(1/60 ~ 1/20,000sec) / Manual / A.FLK | Auto(1/50 ~ 1/20,000sec) / Manual / A.FLK |
| Digital Zoom | 12x | |
| Flip / Mirror | Digital flip | |
| Intelligent Video Analytics | Appear / Disappear | |
| Alarm I/O | Input 4ea / Output 2ea | |
| Remote Control Interface | RS-485/422, Coaxial control | |
| RS-485 Protocol | Samsung-T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vicon | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 352 x 240, 176 x 120 | 704 x 576, 352 x 288, 176 x 144 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : 5 Level (Verylow, Low, Medium, High, Very high)<br>MJPEG : 5 Level (Verylow, Low, Medium, High, Very high) | |
| Bitrate Control Method | CBR only | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | ADPCM | |
| Audio Communication | 2-Way | |
| IP | IPv4 | |
| Protocol | TCP/IP, UDP/IP, RTP, RTSP, NTP, HTTP, DHCP, FTP, SMTP, ICMP, IGMP, ARP, DNS, DDNS | |
| Security | Password protection, IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users | |
| Memory Slot | SD/SDHC memory slot | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 24V AC | |
| Power Consumption | Max. 16W | |
| MECHANICAL | | |
| Color / Material | Silver / Plastic | |
| Dimension (WxH) | Ø155 x 243.4mm (Ø6.1" x 9.58") | |
| Weight | 2Kg (4.41 lb) | |

## Dimensions

Unit : mm (inch)






# SNP-3301H/3370TH

1/4" 30x/37x Network PTZ Dome Camera

H.264 | 4CIF | 30x 37x A/F Lens | WDR 128x 160x | D&N ICR

## Features

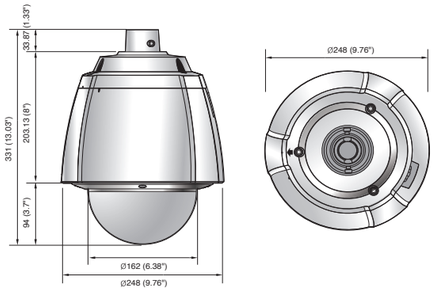
- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG multiple encoding
- WDR (Wide Dynamic Range), 3D noise filter (SSNRII)
- True Day & Night (ICR) • Auto tracking : SNP-3370TH
- Powerful 30x/37x optical zoom (12x digital zoom)
- Bi-directional audio support
- SD memory slot for internal recording
- Fan/Heater built-in for outdoor installation
- IP66

## Technical Specifications

| | SNP-3301HN/3370THN | SNP-3301HP/3370THP |
|---|---|---|
| VIDEO | | |
| Imaging Device | 1/4" Vertical double density interline transfer CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Interlaced | |
| Synchronization | Internal / Line lock | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 550TV lines | |
| Min. Illumination | Color : 0.7Lux (F1.6, 50IRE), 0.0027Lux (Sens-up 256x)<br>B/W : 0.03Lux (F1.6, 50IRE), 0.0001Lux (Sens-up 256x) | |
| S / N Ratio | 50dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| LENS | | |
| Focal Length (Zoom Ratio) | SNP-3301H : 3.5 ~ 105mm (30x), SNP-3370TH : 3.5 ~ 129.5mm (37x) | |
| Max. Aperture Ratio | SNP-3301H : F1.6(Wide) / F3.6(Tele), SNP-3370TH : F1.6(Wide) / F3.9(Tele) | |
| Angular Field of View | H : 55.5°(Wide) ~ 1.59°(Tele) / V : 42.5°(Wide) ~ 1.19°(Tele) | |
| Min. Object Distance | 1.8m (5.91ft) | |
| Focus Control | AF / One-shot AF / Manual | |
| Zoom Movement Speed | SNP-3301H : 2.2x/sec, SNP-3370TH : 2.5x/sec | |
| Lens Type | DC auto iris | |
| Mount Type | Board-in type | |
| PAN / TILT / ROTATE | | |
| Pan Range | 360° Endless | |
| Pan Speed | Preset : 500°/sec, Manual : 0.024°/sec ~120°/sec | |
| Tilt Range | 190° (-5° ~ 185°) | |
| Tilt Speed | Preset : 500°/sec, Manual : 0.024°/sec ~120°/sec | |
| Preset | 255ea | |
| Preset Accuracy | ±0.1° | |
| Auto Tracking | Yes (SNP-3370TH only) | |
| OPERATIONAL | | |
| On Screen Display | English | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | Off / BLC / WDR / HLC | |
| Wide Dynamic Range | 128x | 160x |
| Digital Noise Reduction | 3D noise filter (Off / Low / Medium / High) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (8 Programmable zones) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 256x) | |
| Gain Control | Off / Low / Medium / High | |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor | |
| Electronic Shutter Speed | Auto(1/60 ~ 1/20,000sec) / Manual / A.FLK | Auto(1/50 ~ 1/20,000sec) / Manual / A.FLK |
| Digital Zoom | 12x | |
| Flip / Mirror | Digital flip | |
| Intelligent Video Analytics | Appear / Disappear | |
| Alarm I/O | Input 4ea / Output 2ea | |
| Remote Control Interface | RS-485/422, Coaxial control | |
| RS-485 Protocol | Samsung-T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vicon | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 352 x 240, 176 x 120 | 704 x 576, 352 x 288, 176 x 144 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : 5 Level (Verylow, Low, Medium, High, Very high)<br>MJPEG : 5 Level (Verylow, Low, Medium, High, Very high) | |
| Bitrate Control Method | CBR only | |
| Streaming Capability | Dual streaming (MPEG-4 + MJPEG or H.264 + MJPEG) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | ADPCM | |
| Audio Communication | 2-Way | |
| IP | IPv4 | |
| Protocol | TCP/IP, UDP/IP, RTP, RTSP, NTP, HTTP, DHCP, FTP, SMTP, ICMP, IGMP, ARP, DNS, DDNS | |
| Security | Password protection, IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users | |
| Memory Slot | SD/SDHC memory slot | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7<br>Supported Browser : Internet Explorer 6.0 or Higher | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -50°C ~ +50°C (-58°F ~ +122°F) / 20% ~ 80% RH | |
| Ingress Protection | IP66 Grade (Waterproof) | |
| ELECTRICAL | | |
| Input Voltage / Current | 24V AC | |
| Power Consumption | Max. 22W (Heater off), Max. 64W (Heater on) | |
| MECHANICAL | | |
| Color / Material | Silver / Aluminum | |
| Dimension (WxH) | Ø248 x 331mm (Ø9.76" x 13.03") | |
| Weight | 4.6Kg (10.14 lb) | |

## Dimensions

Unit : mm (inch)



# SNP-3430H

## 1/4" 43x Network PTZ Dome Camera

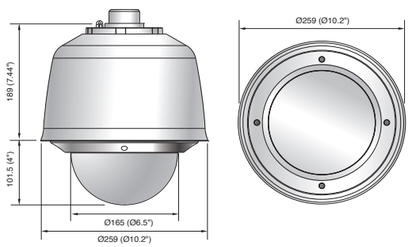
H.264 | 4CIF | 43x A/F Lens | WDR 128x 160x | D&N ICR | hPoE

## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Progressive scan
- WDR (Wide Dynamic Range), XDR (eXtended Dynamic Range)
- True Day & Night (ICR)
- Powerful 43x optical zoom (16x digital zoom)
- Bi-directional audio support
- Preset speed : max. 360˚/sec
- SD/SDHC memory slot for internal recording
- Fan/Heater built-in for outdoor installation
- IP66 • hPoE (High Power over Ethernet)

## Dimensions

Unit : mm (inch)




## Technical Specifications

ONVIF

| | SNP-3430HN | SNP-3430HP |
|---|---|---|
| **VIDEO** | | |
| Imaging Device | 1/4" Ex-view HAD PS CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | Progressive (VPS on) (If WDR on, Interlaced scan) | |
| Synchronization | Internal only | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600TV lines | |
| Min. Illumination | Color : 0.7Lux (F1.6, 50IRE), 0.001Lux (Sens-up, 512x)<br>B/W : 0.07Lux (F1.6, 50IRE), 0.0001Lux (Sens-up, 512x) | |
| S / N Ratio | 52dB | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| **LENS** | | |
| Focal Length (Zoom Ratio) | 3.2 ~ 138.5mm (43x) | |
| Max. Aperture Ratio | F1.6(Wide) / F3.7(Tele) | |
| Angular Field of View | H : 61.2˚(Wide) ~ 1.47˚(Tele) / V : 47.2˚(Wide) ~ 1.1˚(Tele) | |
| Min. Object Distance | 1m (3.28ft) | |
| Focus Control | AF / One-shot AF / Manual | |
| Zoom Movement Speed | Max. 3.2sec (Wide → Tele) | |
| Lens Type | DC auto iris | |
| Mount Type | Board-in type | |
| **PAN / TILT / ROTATE** | | |
| Pan Range | 360˚ Endless | |
| Pan Speed | Preset : 360˚/sec, Manual : 0.05˚/sec ~ 200˚/sec | |
| Tilt Range | 180˚(0˚ ~180˚) | |
| Tilt Speed | Preset : 360˚/sec, Manual : 0.05˚/sec ~ 200˚/sec | |
| Preset | 255ea | |
| **OPERATIONAL** | | |
| On Screen Display | English | |
| Camera Title | Off / On (Displayed up to 48 characters) | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | Off / BLC | |
| Wide Dynamic Range | 128x | 160x |
| Contrast Enhancement | XDR (eXtended Dynamic Range) (Off / Low / Medium / High) | |
| Digital Noise Reduction | Motion adaptive 2D+3D noise filter (Off / Low / Medium / High) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Yes | |
| Privacy Masking | Off / On (12 Polygonal programmable zones) | |
| Sens-up (Frame Integration) | Off / Auto (2x ~ 512x) | |
| Gain Control | Off / Low / Medium / High / Manual | |
| White Balance | ATW (In) / ATW (Out) / AWC / Manual | |
| Electronic Shutter Speed | Off / A.FLK / Manual (1/120 ~ 1/10Ksec) | Off / A.FLK / Manual (1/100 ~ 1/10Ksec) |
| Digital Zoom | 16x | |
| Flip / Mirror | Off / On | |
| Profile | Yes | |
| VPS | Off / On | |
| Intelligent Video Analytics | Moved / Fixed | |
| PIP | Off / On | |
| Schedule | Day / Time schedule | |
| Alarm I/O | Input 8ea / Output 4ea (Relay) | |
| Remote Control Interface | RS-485 | |
| RS-485 Protocol | Samsung-T/E, Pelco-P/D, Panasonic, GE (KaLatel), Vicon, Honeywell, Bosch (Philips) | |
| **NETWORK** | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240 | 704 x 576, 640 x 480, 352 x 288 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | G.711 u-law | |
| Audio Communication | 2-Way | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) Login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| ONVIF Conformance | Yes | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari | |
| Central Management Software | NET-i viewer | |
| **ENVIRONMENTAL** | | |
| Operating Temperature / Humidity | -50°C ~ +50°C (-58°F ~ +122°F) / 20% ~ 80% RH | |
| Ingress Protection | IP66 (Waterproof) | |
| **ELECTRICAL** | | |
| Input Voltage / Current | 24V AC, hPoE | |
| Power Consumption | Max. 24W (Heater off), Max. 57W (Heater on) | |
| **MECHANICAL** | | |
| Color / Material | Light gray / Aluminum / Plastic sun-shield | |
| Dimension (WxH) | Ø259 x 290.5 mm (Ø10.2" x 11.44") | |
| Weight | TBD | |



# Camera Accessories

## Applicable Models

| | |
|---|---|
| **PTZ Camera** | SNP-3301H/3370TH |

## Accessories

| Image | | | | | | |
|---|---|---|---|---|---|---|
| Description | Pendant Mount | Parapet Mount | In-Ceiling Coupling | Wall Mount | Pole Mount | Corner Mount |
| Model | STB-300PP | STB-355PPM | STB-40PF | STB-300PW | STB-330PPM | STB-340PPM |

## Applicable Models

| | |
|---|---|
| **Vandal-resistant Dome Camera** | SNV-3080, SNV-3120, SNV-5080 |
| **PTZ Camera** | SNP-3120/3120V/3120VH, SNP-3430H |

## Accessories

| Image | | | | | | | |
|---|---|---|---|---|---|---|---|
| Description | | Mount Adaptor | Wall Mount | Ceiling Mount | Pendant Mount | Pole Mount | Corner Mount |
| Model | Silver | SCX-300HM | SCX-300WM | SCX-300CM | SCX-300LM | SCX-300PM | SCX-300KM |
| | Ivory | SBP-300HM | SBP-300WM | SBP-300CM | SBP-300LM | SBP-300PM | SBP-300KM |

SCX-300HM should be combined to SNV-3080, SNV-3120, SNV-5080, SNP-3120, and SNP-3120V, to be connected with other mount accessories.

# Camera Accessories

## Applicable Models

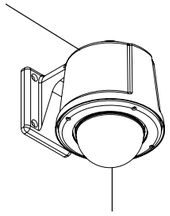
| | |
|---|---|
| **PTZ Camera** | SNP-3301/3370 |

## Accessories

| Image | | | | | | |
|---|---|---|---|---|---|---|
| Description | Ceiling Mount | Flange (Combined with STB-370PC/NPC to be connected with other mounts) | Extreme weather Proof Housing | Outdoor Housing | Indoor Housing | In-Ceiling Housing |
| Model | STB-370NPC | STB-25PF | STH-380NPO | STH-370NPO<br>STH-360NPO | STH-370NPI | STB-370NPE |
| Image | | | | | | |
| Description | Wall Mount | In-Ceiling Mount | Parapet Mount | Pendant Mount | Pole Mount | Corner Mount |
| Model | STB-270PWV | STB-30PF | STB-350PPM | STB-496PPV | STB-330PPM | STB-340PCM |

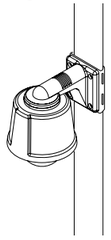
## Configuration

### Wall Mounting



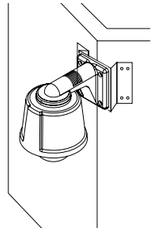
STB-270PWV + PTZ Dome Housing + PTZ Camera

### Pole Mounting



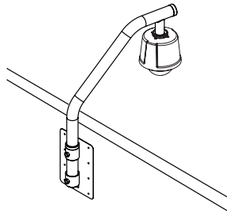
STB-330PPM + STB-270PWV + PTZ Dome Housing + PTZ Camera

### Corner Mounting



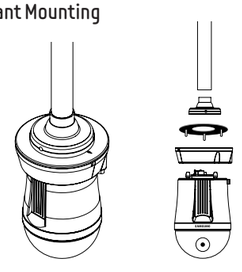
STB-340PCM + STB-270PWV + PTZ Dome Housing + PTZ Camera

### Parapet Mounting

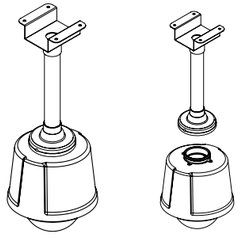


STB-350PPM + STB-30PF + PTZ Dome Housing + PTZ Camera

### Pendant Mounting



STB-30PF + STB-25PF + STB-370NPC + PTZ Camera



STB-496PPV (STB-30PF included) + PTZ Dome Housing + PTZ Camera

# HARDWARE
# NVR

**SRN-1670D**
16CH Network Video Recorder

**SRN-3250/6450**
32CH/64CH Network Video Recorder

# SRN-1670D

16CH Network Video Recorder

16CH | Dual Codec | 480fps(N) 400fps(P) | Max.5TB HDD | CMS

## Features

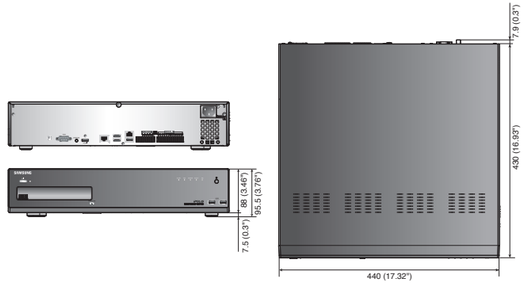
- H.264/MJPEG dual codec
- 480(400)fps real-time recording at CIF
- Megapixel resolution live monitoring
- Preview function for search modes
- Audio output RCA 1ea
- HDMI monitor interface support
- DVD back up support

## Technical Specifications

| | | SRN-1670D |
|---|---|---|
| DISPLAY | | |
| N/W | Inputs | 16CH |
| Camera | Resolution | VGA, 4CIF, 1.3M(720p), 2M(1080p) |
| Live | Frame rate | NTSC : 480fps, PAL : 400fps |
| | Resolution | VGA, 4CIF, 1.3M(720p), 2M(1080p) |
| | Multi Screen Display | Single, 4, 6, 8, 9, 13, 16, Sequence |
| PERFORMANCE | | |
| Operating System | Embedded | Linux |
| Recording | Compression | H.264, MJPEG |
| | Record Rate / NTSC | Up to 120fps@1920 x 1080 (2M)<br>Up to 120fps@1280 x 1024 (1.3M)<br>Up to 120fps@1280 x 720 (1M)<br>Up to 480fps@704 x 480 (4CIF) |
| | Record Rate / PAL | Up to 100fps@1920 x 1080 (2M)<br>Up to 100fps@1280 x 1024 (1.3M)<br>Up to 100fps@1280 x 720 (1M)<br>Up to 400fps@704 x 576 (4CIF) |
| | Mode/NTSC | Manual, Schedule (Continuous/Event), Event (Pre/Post) |
| | Mode/PAL | Manual, Schedule (Continuous/Event), Event (Pre/Post) |
| | Overwrite Modes | Continuous |
| | Pre-alarm | Up to 30sec (5, 10, 20, 30sec) |
| | Post-alarm | Up to 6hour (5, 10, 20, 30sec,1, 3, 5, 10, 20min, 1, 2, 3, 4, 5, 6hour) |
| Search & Playback | Playback Speed / NTSC | Up to 60fps@1920 x 1080 (2M)<br>Up to 60fps@1280 x 1024 (1.3M)<br>Up to 60fps@1280 x 720 (1M)<br>Up to 240fps@704 x 480 (4CIF) |
| | Playback Speed / PAL | Up to 50fps@1920 x 1080 (2M)<br>Up to 50fps@1280 x 1024 (1.3M)<br>Up to 50fps@1280 x 720 (1M)<br>Up to 200fps@704 x 576 (4CIF) |
| | Search Mode | Date/time, Event, Back up (*All search mode include preview function) |
| | Playback Function | Fast forward/backward, Slow forward/backward, Step forward/backward |
| Network | Transmission Speed | Up to 20Mbps, Unlimited(20M) / 2 / 1.5 / 1Mbps / 800 / 600 / 500 / 400 / 300 / 200 / 100 / 50kbps |
| | Bandwidth Control | Automatic |
| | Multi Stream | H.264/ MJPEG multiple codec |
| | Max. Remote Users | Search(3) / Live unicast(10) / Live multicast(20) |
| | Protocol Support | TCP/IP, DHCP, PPPoE, SMTP, NTP, HTTP, DDNS, RTP, RTSP |
| | Monitoring | Net-i viewer, Webviewer |
| Storage | Internal HDD | Up to 5 SATA HDDs |
| | External HDD | e-SATA interface |
| | DVD Writer (Back up) | Yes |
| | USB (Back up) | 2 USB ports |
| | File Format (Back up) | MDB (DVR Play back), EXE (Include player) |
| Security | Password Protection | 1 Admin, 10 Group, 20 User per 1 group, User can be assigned authority for function |
| | Data Authentication | Watermark |
| INTERFACE | | |
| Monitors | VGA | Analog RGB 1280 x 1024(60Hz) resolution |
| | HDMI | 720p/1080p(60Hz) resolution |
| Audio | Output | RCA x 1 |
| | Compression | G.711 / 723 / 726 |
| Alarm | Inputs | Terminal 16 inputs, NO/NC |
| | Outputs | Terminal 4 relay outputs, NO/NC |
| | Remote Notification | Notification via e-mail |
| Connections | Ethernet | 2 RJ-45 10/100/1000 Base-T |
| | USB | USB 2.0, 2ports |
| | e-SATA | 2ports |
| | Application Support | Mouse, Remote controller |
| Dome Protocols | Supported PTZ cameras | Network PTZ (Samsung network camera) |
| GENERAL | | |
| Electrical | Input Voltage | 100 ~ 240V AC ±10%, 50/60Hz, Auto ranging |
| | Power Consumption | Max. 60W (with 1x HDD) |
| Environmental | Operating Temperature | +0°C ~ +40°C (+32°F ~ +104°F) |
| | Operating Humidity | 20% ~ 85% RH |
| Mechanical | Dimensions (WxHxD) | 440 x 88 x 430mm (17.32" x 3.46" x 16.93") |
| | Weight (2x Hard Disks) | Approx. 7.3Kg (16.09 lb) |
| | Rack Mount Kit | 2ea |

## Dimensions

Unit : mm (inch)






# SRN-3250/6450

32CH/64CH Network Video Recorder

64CH/32CH | Triple Codec | 960fps(N) 800fps(P) | 1250fps(N) 1152fps(P) | Max.20TB HDD | CMS

## Features

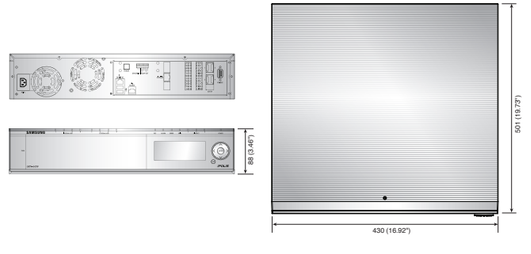
- H.264, MPEG-4 & MJPEG triple codec
- 960(800)fps real-time recording at CIF (SRN-3250)
  1920(1600)fps real time recording at CIF (SRN-6450)
- Large-sized default HDD with 1TB data capacity
- Supports multiple video streaming
- Optimal quality for real-time network monitoring
- Supports NAS & RAID 5 (SRN-6450)
- AXIS network camera support (VAPIX)

## Technical Specifications

| | | SRN-3250 | SRN-6450 |
|---|---|---|---|
| DISPLAY | | | |
| Video | IP Camera Inputs | 32CH | 64CH |
| Web | Live | 1, 4, 9, 16, 32 channel simultaneously | 1, 4, 9, 16, 32, 64 channel simultaneously |
| Support | Search | 1, 4, 9, 16, 32 channel simultaneously | 1, 4, 9, 16, 32, 64 channel simultaneously |
| PERFORMANCE | | | |
| Recording | Compression (IP) | H.264, MPEG-4, MJPEG | |
| | Record Rate / NTSC | Up to 480fps@704 x 480 (4CIF) | Up to 1280fps@704 x 480 (4CIF) |
| | | Up to 960fps@704 x 240 (2CIF) | Up to 1920fps@704 x 240 (2CIF) |
| | | Up to 960fps@352 x 240 (CIF) | Up to 1920fps@352 x 240 (CIF) |
| | Record Rate / PAL | Up to 480fps@704 x 576 (4CIF) | Up to 1152fps@704 x 576 (4CIF) |
| | | Up to 800fps@704 x 288 (2CIF) | Up to 1600fps@704 x 288 (2CIF) |
| | | Up to 800fps@352 x 288 (CIF) | Up to 1600fps@352 x 288 (CIF) |
| | Mode | Manual, Schedule (Normal / Event) | |
| | Overwrite Modes | Continuous | |
| | Pre-alarm | Up to 5sec | |
| | Post-alarm | Up to 60sec | |
| Search & Playback | Search Mode | Time, Event, Calendar | |
| | Playback Function | REW, FWD (Depend on CMS) | |
| Network | Bandwidth Control | Automatic (Automatic Transmission Control) | |
| | Max. Remote Users | 10 Simultaneously | |
| | Protocol Support | TCP/IP, DHCP, DNS, DDNS, HTTP, ARP, ICMP,NTP, RTP/RTCP, RTSP | |
| | Monitoring | CMS software (SVM-128S/P), Built-in web server | |
| Storage | Maximum Capacity | Up to 20TB using external storage option | |
| | RAID | RAID 1, RAID 5 | |
| | Internal HDD | Up to 4 SATA HDDs | |
| | External HDD | Up to 4 expansion bay (Up to 4 HDD each) | |
| | NAS | Up to 4 NAS connection (CIFS/Samba) | |
| Security | Password Protection | 2 User level | |
| INTERFACE | | | |
| Monitors | DOT Matrix LCD | 20 x 2 Status display | |
| Alarm | Inputs | Screw terminal 2 inputs, NO/NC | |
| | Outputs | Screw terminal 2 relay outputs, NO/NC | |
| | Remote Notification | Notification via e-mail | |
| Connections | Ethernet | 3 (RJ-45 100/1000 Base-T), 1 (RJ-45 100Base-T) | |
| | Serial Interface | RS-232C | |
| | USB | 2 USB 2.0ports (Firmware upgrade) | |
| | eSATA | 4 External SATA ports | |
| Dome Protocols | Supported PTZ Cameras | Samsung Techwin network products, AXIS network cameras (VAPIX) | |
| GENERAL | | | |
| Electrical | Input Voltage | 100 ~ 240V AC ±10%, 50/60Hz, Auto ranging | |
| | Power Consumption | Max. 110W (With 1x HDD)<br>Max. 130W (With 4x HDD) | |
| Environmental | Operating Temperature | +5°C ~ +40°C (+41°F ~ +104°F) | |
| | Operating Humidity | 0% ~ 60% RH | |
| Mechanical | Dimensions (WxHxD) | 430 x 88 x 501mm (16.92" x 3.46" x 19.73") | |
| | Weight (4x Hard Disks) | Approx. 11Kg (24.25 lb) | |
| | Rack Mount Kit | For mounting one unit in an EIA 19 inch rack | |
| Language (LCD) | | English | |
| Certifications | | FCC (Class A), cUL/UL listed, CE (Class A) | |

## Dimensions

Unit : mm (inch)



# ENCODER

SPE-100
1CH Network Video Encoder



# SPE-100

## 1CH Network Video Encoder

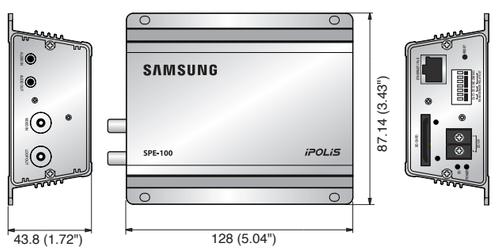
1CH | H.264 | 4CIF | Bi-directional Audio | PoE

## Features

- Max.4CIF (704 x 480, 704 x 576) resolution
- Max. 30(25)fps at 4CIF
- H.264, MPEG-4 & MJPEG triple codec
- Multiple streaming simultenously
- De-interlacing filter
- Bi-directional audio support
- SD memory slot for internal recording
- PoE (Power over Ethernet)
- HTTPS security login support
- RS-485/422 interface (Multi protocol support)
- 1Ch BNC input / output

## Dimensions

Unit : mm (inch)




## Technical Specifications

| | SPE-100N | SPE-100P |
|---|---|---|
| OPERATIONAL | | |
| Video In | CVBS : 1.0 Vp-p / 75Ω composite, NTSC/PAL auto detection | |
| Video Out | CVBS : 1.0 Vp-p / 75Ω composite, Loop-out | |
| De-interlacing Filter | Built-in | |
| Event Trigger | Motion detection, Alarm input, Video loss | |
| Alarm I/O | Input 1ea / Output 1ea (Relay) | |
| Remote Control Interface | RS-485 | |
| RS-485 Protocol | Samsung-T/E, Pelco-P/D | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264, MPEG-4, MJPEG | |
| Resolution | 704 x 480, 640 x 480, 352 x 240, 320 x 240 | 704 x 576, 640 x 480, 352 x 288, 320 x 240 |
| Max. Framerate | 30fps | 25fps |
| Video Quality Adjustment | H.264 / MPEG-4 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 / MPEG-4 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| Audio I/O | Line in / Line out | |
| Audio Compression Format | G.711 u-law | |
| Audio Communication | 2-Way | |
| IP | IPv4, IPv6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE<br>FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS | |
| Security | HTTPS(SSL) login authentication, Digest login authentication<br>IP address filtering, User access log | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 10 users at unicast mode | |
| Memory Slot | SD/SDHC memory slot | |
| ONVIF Conformance | Yes | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7, MAC OS<br>Supported Browser : Internet Explorer 6.0 or Higher, Firefox, Google Chrome, Apple Safari | |
| Central Management Software | NET-i viewer | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / 20% ~ 80% RH | |
| ELECTRICAL | | |
| Input Voltage / Current | 12V DC, PoE (IEEE802.3af) | |
| Power Consumption | Max. 4W | |
| MECHANICAL | | |
| Color / Material | Silver / Metal | |
| Dimension (WxHxD) | 128 x 43.8 x 87.14mm (5.04" x 1.72" x 3.43") | |
| Weight | 391g (0.86 lb) | |

# SOFTWARE

- CMS
- SOFTWARE NVR

**NET-i viewer**
Central Management Software

**NET-i ware**
Recording Software



# NET-i viewer

## Central Management Software

### Features

- Monitoring software for surveillance products of Samsung
- Up to 32 channels simultaneous real time live monitoring in single PC
  (When using Dual monitors)
- Supports various video format : H.264, MPEG-4, MJPEG
- Supports various audio format : G.726, G.711, G.723, PCM
- Supports various video resolution
  : Megapixel (1M, 2M, 3M), 4CIF, Half D1, VGA, CIF
- Powerful E-map based monitoring support
- Bi-directional audio communication
- Remote PTZ control and power area zoom (Click and go control)
- Supports various search and playback options
  : Date and time based search
  : Event (Alarm, Motion, Intelligent video) based search
  : Normal playback, Backward playback, Fast/Slow playback, Step playback
- Notification in case of event occurring
  : Highlighting in the border of video window
  : Display event log message in real time
- Back up capability
  : Manual back up
  : AVI, REC1, SEC format
  : CD, DVD back up
  : External storage (USB, NAS) back up
- Manual recording (up to 1 channel) during 24 hours
- Multi-level user access and authority management
- Multiple language user interface support
  : English, French, German, Spanish, Italian, Turkish, Russian, Chinese, Japanese, Korean
- Automatic search of network cameras for quick and easy configuration
- Easy device management (Configuration, Firmware upgrade)
- Automatic self upgrade (Connection to Samsung upgrade server)

### Technical Specifications

| | | Net-i viewer |
|---|---|---|
| DEVICE | | |
| Supported Device | | Network Camera, Encoder, DVR, NVR |
| Max. Register Device | | 250 |
| PERFORMANCE | | |
| Video | Supported Format | H.264, MPEG-4, MJPEG |
| | Supported Resolution | QXGA, UXGA, SXGA, HD, SVGA, 4CIF, Half D1, VGA, CIF, QVGA |
| Audio | Supported Format | G.711, G.726, G.723, PCM |
| | Functions | Bi-directional audio, listen, transmit client microphone input to remote speakers |
| Live Monitoring | Multi-monitor | Live monitoring up to 16 channels simultaneously per computer monitor<br>(Up to 32 when using dual monitors) |
| | Screen-split Mode | 1, 4, 6, 7, 8, 9, 10, 11, 12, 16 (Full-screen) |
| | PTZ Control | PTZ control (Pan, Tilt, Zoom, Focus, Preset) using mouse<br>Digital zoom in/out on the image, click and go control |
| | Functions | Automatic device search of network cameras for quick and easy configuration,<br>Device management (configuration & firmware update), Snapshot / Prints image |
| Search & Playback | Local (Remote) Playback | Supported |
| | Search | Search for recordings based on DVR, NVR, Date/time based search,<br>Event (Alarm, Motion, Intelligent video) based search |
| | Playback mode | Normal, Forward/Backward, Fast/Slow, Step |
| | PTZ Control | PTZ control (Pan, Tilt, Zoom, Focus, Preset) using mouse or joystick<br>Digital Zoom in/out on the image |
| | Functions | Snapshot / Prints image |
| Back up | Local (Remote) Back up | Supported |
| | Back up | Local storage, CD/DVD, back up format (AVI, REC1, SEC) |
| Event Monitoring | Display | Highlighting in the border of video window,<br>Display event log message in real time, Launches instant player |
| | Logs | Event (Alarm, Motion, Intelligent video, video loss),<br>Stores user actions by time and cameras and full system operation |
| MAP Viewer | Display | Camera / Alarm / Sensor on the map |
| | Number of Map | 50maps |
| | Supports Image | JPEG / BMP / GIF / PNG |
| | Monitoring | Launches Instant Player/viewer up to 16 channel |
| User | | Admin, Operator, User |
| Update | | Automatic self upgrade(Connection to Samsung upgrade server) |
| GENERAL | | |
| Language | | English, French, German, Spanish, Italian, Turkish, Russian, Chinese, Japanese, Korean |
| System Requirement (Recommended) | | CPU : Intel Core2Quad 2.5GHz above,<br>RAM : 3GB above, Video memory : 512MB, HDD : 200GB above,<br>OS : Window XP Professional, Windows 2000 Professional,<br>Windows Vista Home Basic / Premium / Ultimate, Windows 7, DirectX 8.1 above.<br>Display resolution : 1,280 x 1,024 above, OpenGL compatible |

* The entire items are not supported in every device. Some items are not supported in certain devices.

# NET-i viewer

The NET-i viewer is a central management software for multi channel purposes, which can be managed by integrating Samsung Techwin's DVR and network products which are connected to the network through a single user interface. This software is provided with compatible network products of Samsung Techwin in free.
Featuring convenient monitoring functions, users can maximize Samsung Techwin's network capabilities with NET-I viewer.

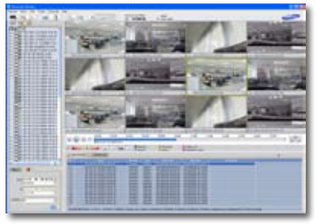
## Live Viewer

### Dual monitor with 32 channels real time live monitoring

The NET-i viewer can connect max.2 monitors if it is supported by a PC or server. Overall screen security management and area control are possible by opening docking windows and additional windows on many monitors. A maximum of 16 cameras can be monitored simultaneously on one monitor. If a 2nd monitor is used, another 16 screens can be shown, resulting in the ability to monitor max.32 screens.

### Real-time Event Monitoring

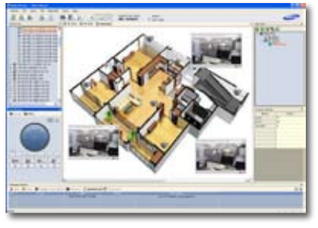
More convenient surveillance through “Event monitoring” functions of the NET-i viewer is possible. Alarm event, intelligent video analysis, video loss, as well as system log and device log in can be controlled on easy-to-use GUI (Graphical User Interface). A scene with an event turns on to yellow letting administers to know what happened to which cameras or DVRs. Detailed information, also can be checked on the bottom tap.



## Search Viewer

### Extensive searching functions

The NET-i viewer can search and playback recorded data on local PC or remote recording device such as DVR. Calendar search function can track the record on a specific date or period of time and event search function shows only the record with events of motion detection, video loss, and etc. It can be clear with color bar, which event has occurred in which date and time, resulting in save of the time for users.



## Map Viewer

### Convenient monitoring with mapping

The NET-i viewer offers a 2D graphical view of your secured area with layering capability allowing users to define various levels of an area such as national map, states, cities, buildings, and sites. The operator can drill down to the map layer to get the actual location of the alerts. In addition, the live video image or recorded image corresponding to the events can be easily checked with a click of a mouse.

## Supported Models

**NET-i viewer** (The latest release version : 1.22)

| | | |
|---|---|---|
| Network Camera | Box | SNB-1000, SNB-2000, SNB-3000, SNB-5000<br>SNC-B2335, SNC-B2331, SNC-1300, SNC-M300, SNC-550, SNC-570 |
| | Dome | SND-1010, SND-3080/3080F, SNV-3080, SNV-3120, SND-5080/5080F, SNV-5080<br>SND-560, SND-460V, SNC-B5368, SNC-B5399 |
| | PTZ | SNP-3370, SNP-3301, SNP-3370TH, SNP-3120/3120V/3120VH<br>SNC-C6225, SNC-C7225, SNC-C7478, SNP-3300A, SNP-1000A, SNP-3750, SNP-3350 |
| Encoder | | SNS-400, SNS-100, SPE-100 |
| DVR | | SRD-1670(D)/1650(D)/870(D)/850(D)/470(D)<br>SRD-1630(D)/1610(D)/830(D)<br>SHR-2000/5000/6000/7000/8000 series |
| NVR (S/W) | | NET-i ware : SNS-SF064/032/016/008/004 |



# NET-i ware

Recording Software (Hardware NVR)

## Features

- Recording software for Samsung network cameras
  : 4 / 8 / 16 / 32 / 64 cameras recording package are available now
  : Recording channel extension is available by channel addition
  : Live video monitoring and search/playback of recorded video by CMS software
- Delivers high performance recording
  : Up to 480fps(NTSC) / 400fps(PAL) recording at 4CIF resolution
- Triplex operation performance
  : Recording, Live video transfer, Recorded video transfer
- Supports various recording options
  : Continuous recording
  : Event based recording (including Pre/Post alarm recording)
  (Motion detection, I/V detection, Video loss, Alarm signal input)
  : Scheduled recording (including Holiday setup)
- Notification in case of event occurring
  : User defined alert sound output
  : E-mail to pre-assigned receiver
  : Notification to monitoring software (CMS software)
- Event Log : System, User access, Back up, Recording, Motion, Alarm, Video loss, I/V
- Multiple disk allocation and distribution for stable recording
- Multi-level user access and authority management
- Multiple Language user interface support
  : English, French, Germany, Spanish, Italian, Turkish, Russian, Chinese, Japanese, Korean
- Automatic search of network cameras for quick and easy configuration
- Automatic self upgrade (Connection to Samsung upgrade server)

## Accessories (Provided)

USB Dongle Key

## Technical Specifications

| | | SNS-SF064 | SNS-SF032 | SNS-SF016 | SNS-SF008 | *SNS-SF004 |
|---|---|---|---|---|---|---|
| DEVICE | | | | | | |
| Supported Device | | Samsung's Network Camera, Encoder | | | | |
| Max. Register Device | | 64 | 32 | 16 | 8 | 4 |
| Component | | Camera | | | | |
| PERFORMANCE | | | | | | |
| Video | Supported Format | H.264, MPEG-4, MJPEG | | | | |
| | Supported Resolution | QXGA, UXGA, SXGA, HD, SVGA, 4CIF, Half D1, VGA, CIF, QVGA | | | | |
| Audio | Supported Format | G.711, G.726, G.723, PCM | | | | |
| | Functions | Bi-directional audio, Listen, Transmit client microphone input to remote speakers | | | | |
| Record | Record Rate (CIF) | 1,920fps | 960fps | 480fps | 240fps | 120fps |
| | Record Rate (D1) | 480fps | 480fps | 480fps | 240fps | 120fps |
| | Record Mode | Continuous, Event (Pre/Post alarm recording), Scheduled recording | | | | |
| | Quality | 10 levels | | | | |
| | Pre/Post Record Time | Pre : 1 ~16ch 60sec, 17~32ch 30sec, 33~64ch 15sec, Post : 1200sec | | | | |
| | LOG | System, User access, Back up, Recording, Motion, Alarm, Video loss, Intelligent video | | | | |
| Search & Playback | Playback | 4 user x 4ch | | | | |
| | Mode | Time, Event, Timeline | | | | |
| Back up | Manual | DVD/CD, USB HDD, USB flash memory, Back up format : REC1, SEC | | | | |
| | Schedule | NAS (Network Attached Storage), USB HDD, Back up format : REC1 | | | | |
| Event | E-mail | E-mail transfer at event occurrence | | | | |
| Monitoring | Preset | Preset move at alarm occurrence | | | | |
| Storage | Maximum Controller of HDD | 23HDDs | | | | |
| | Supported Device Format | e-SATA | | | | |
| | Functions | Storage space assigning by each disk, Warning against lower disk space | | | | |
| System | NIC support | NIC is selectable by device connection and client connection type | | | | |
| | SW Status | Device connection, Manual/Schedule recording status | | | | |
| | Data Security | Login packet encryption | | | | |
| | Configuration value | Initialization / Export / Import | | | | |
| | Functions | Auto power-on record | | | | |
| User | User level | User-defined function | | | | |
| | Local(Remote) User | Group : 32, User : 32 | | | | |
| | IP filtering for remote user | Supported | | | | |
| Update | | Automatic self upgrade (Connection to Samsung upgrade server) | | | | |
| GENERAL | | | | | | |
| Language | | English, French, German, Spanish, Italian, Turkish, Russian, Chinese, Japanese, Korean | | | | |
| System Requirement (Recommended) | | CPU : Xeon E5405 QuardCore 2.0, RAM : 4GB<br>Video memory : 256MB, 2HDDs(SATA II) above<br>Microsoft .NET Framework 3.5<br>OS : Windows 2003 Server SP2, Windows 2008 Server | | | | |
| System Requirement (Minimum) | | CPU : Intel Core2Duo 2.53GHz, RAM : 2GB above<br>Video memory : 256MB, 2HDDs(SATA II) above<br>Microsoft .NET Framework 3.5<br>OS : Windows XP2, Windows 2003 Server SP2, Windows Vista, Windows 2008 Server, Windows 7 | | | | |

* Recording channel extension is available by channel addition function.
* SNS-SF004 : Free software

# NET-i ware

NET-i ware is a recording solution for Samsung Techwin's network product including network cameras and encoders. It provides an ideal storage solution fits to users' need by suggesting a range of channel recording capabilities and various recording functions. Users can experience a pentaplex solution for Live monitoring, Recording, Playback, Remote monitoring/Backup simultaneously.

## No.1 Network Recording Solution

NET-i ware is a recording system for up to 64 network devices. It supports H.264, MPEG-4 and JPEG compression so that users can select a compression algorithm according to their circumstances.

### Real time recording performance

The NET-i ware is available in 4 / 8 / 16 / 32 / 64 channels and each offer real time recording at CIF resolution.

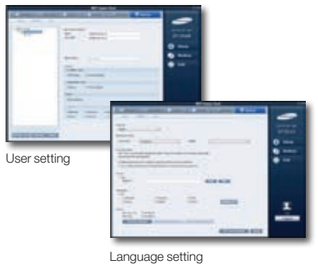
| Model | SNS-SF064 | SNS-SF032 | SNS-SF016 | SNS-SF008 | * SNS-SF004 |
|---|---|---|---|---|---|
| Channel | 64Ch | 32Ch | 16Ch | 8Ch | 4Ch |
| 4CIF | 480fps | 480fps | 480fps | 240fps | 120fps |
| CIF | 1,920fps | 960fps | 480fps | 240fps | 120fps |

* SNS-SF004 : Free software

Users can set the FPS for each camera so that can allocate more recording storage to important channels. NET-i ware supports megapixel resolution recording. The channel number that can be recorded in megapixel is subject to change, depending on the setting ; fps, bitrate, and resolution. (SNS-SF016/SF032/SF0064)

### Event based recording to save storage

Users do not have to look at all recorded video to find out what happened. NET-i ware supports various recording modes ; pre/post alarm recording, motion detection, intelligent video detection, video loss, and alarm signal input. By setting prefer recording mode for each camera, NET-i ware helps users to save times and makes searching more accurate and convenient.



User setting

Language setting

## Easy to use Interface

NET-i ware offers easy configuration with automatic camera discovery, IP change, firmware upgrade and intuitive interface. Also, it supports system security modes such as IP filtering, various search, and schedule backup with external storage devices. Multi-level user access is possible, an administrator can use authority management. It supports multi language for English, French, German, Spanish, Italian, Turkish, Russian, Chinese, Japanese, Korean.

## Supported Models

### NET-i ware (The latest release version : 1.22)

| | | |
|---|---|---|
| Network Camera | Box | SNB-1000, SNB-2000, SNB-3000, SNB-5000<br>SNC-B2335, SNC-B2331, SNC-1300, SNC-M300, SNC-550, SNC-570 |
| | Dome | SND-1010, SND-3080/3080F, SNV-3080, SNV-3120, SND-5080/5080F, SNV-5080<br>SND-560, SND-460V, SNC-B5368, SNC-B5399 |
| | PTZ | SNP-3370, SNP-3301, SNP-3370TH, SNP-3120/3120V/3120VH<br>SNC-C6225, SNC-C7225, SNC-C7478, SNP-3300A, SNP-1000A, SNP-3750, SNP-3350 |
| Encoder | | SNS-400, SNS-100, SPE-100 |